REMEDIAL SITE ASSESSMENT DECISION - EPA REGION VIII

EPA ID: UTN000802657 Site Name: BLOCK 35 METHYLENE CHLORIDE PLUME State ID:

Alias Site Names:

City: SALT LAKE CITY

Refer to Report Dated: 11/28/2011 County or Parish: SALT LAKE State: UT

Report Developed By: STATE Report Type: SITE INSPECTION 001

[X] 1. Further Remedial Site Assessment Under CERCLA (Superfund) is not required because:
NFRAP-Site does not qualify for the NPL based on existing information

[ ] 2. Further Assessment Needed Under CERCLA:

Discussion/Rationale:

Site is located in downtown Salt Lake City, Utah, and consists of automotive related businesses. Several USTs have been removed from this site and sample results for chlorinated solvents submitted in 2000 from an on-site monitoring well revealed a methylene chloride concentration of 78.6 ug/L. Methylene Chloride and other VOCs sampled in 2009 were shown to be well below benchmarks in groundwater and in soil (the primary pathways of concern). Therefore, the likelihood of exposure in all four pathways is of limited concern.

The U.S. Environmental Protection Agency (EPA) has determined that no further remedial action by the Federal Superfund program is warranted at the referenced site, at this time. The basis for the no further remedial action planned (NFRAP) determination is provided in the attached document. A NFRAP designation means that no additional remedial steps under the Federal Superfund program will be taken at the site unless new information warranting further Superfund consideration or conditions not previously known to EPA regarding the site are disclosed. In accordance with EPA's decision regarding the tracking of NFRAP sites, the referenced site may be removed from the CERCLIS database and placed in a separate archival database as a historical record if no further Superfund interest is warranted. Archived sites may be returned to the CERCLIS site inventory if new information necessitating further Superfund consideration is discovered.

Site Decision Made by: RYAN DUNHAM

Signature: _____ Date: 12/27/2011

State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF ENVIRONMENTAL
RESPONSE AND REMEDIATION

Brent H. Everett
Director

ERRC-197-11

November 28, 2011

Ryan Dunham
U.S. EPA Region VIII
1595 Wynkoop Street 8EPR-B
Denver, Colorado 80202-1129

Dear Mr. Dunham:

Enclosed for your review is the revised D*raft Site Investigation (SI) Analytical Results Report* (*ARR*) for the Block **35** Methylene Chloride **Plume** (CERCLIS ID# UTN000802657)site located in Salt Lake City, Utah. Changes were made throughout the ARR based on comments dated July 21, 2011, provided by Margaret Williams, the previous U.S. Environmental Protection Agency (EPA) Site Assessment Manager.

A site visit was performed on July 14-15, 2009, and groundwater and soil samples were collected and analyzed for volatile organic compounds (VOCs). The findings of the SI indicate that methylene chloride were well below Superfund Chemical Data Matrix(SCDM) and risk-based screening level (RBSL) benchmarks. Additionally, the nearest drinking water well has not been impacted by groundwater contamination from the site. Based on the data collected during the investigation, this site is recommended for **No Further Remedial Action Planned (NFRAP)** under the Comprehensive Environmental Response, Compensation, and LiabilityAct (CERCLA).

After reviewing the *SI ARR*, please inform us of any comments or changes that need to be incorporated in the final version of the document. If you have any questions concerning the contents of the *SI ARR*, please contact Kim Viehweg at (801) 536-4161.

Sincerely,

Dale T. Urban, P.G.
Site Assessment Section Manager
Division of Environmental Response and Remediation

DTU/KV/eds

cc: Gary L. Edwards, M.S., Director, Salt Lake Valley Health Department (without enclosures)

SITE INVESTIGATION
ANALYTICAL RESULTS REPORT

Block 35 Methylene Chloride Plume
Salt Lake County, Utah
UTN000802657

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
Division of Environmental Response and Remediation
Prepared by: Kim Viehweg

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UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
Division of Environmental Response and Remediation
Prepared by: Kim Viehweg

Approved: Kim Viehweg
Kim Viehweg, UDEQ Project Manager
Date: 11/23/11

Approved: Dale T. Urban
Dale T. Urban, UDEQ Site Assessment Section Manager
Date: 11/25/11

Approved:
Ryan Dunham, Site Assessment Manager,
EPA Region 8
Date: 12/27/11

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L0 INTRODUCTION

Under authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, the Superfund Amendments and Reauthorization Act (SARA) of 1986, and in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the Utah Department of Environmental Quality (UDEQ), Division of Environmental Response and Remediation (DERR) has prepared this Analytical Results Report (ARR) as part of the Site Investigation (SI) at the Block 35 Methylene Chloride Plume, UTN000802657, (referred to as the "site") in Salt Lake City, Utah. This SI was prepared under a cooperative agreement between DERR and the U.S. Environmental Protection Agency, Region 8 (EPA).

This report documents the field sampling procedures and presents the results from the sampling and data collection procedures. Samples were analyzed through the Contract Laboratory Program (CLP) of the EPA.

The DERR completed a Preliminary Assessment (PA) report for the Block 35 Methylene Chloride Plume site in January 2009, and a Site Investigation Work Plan (SI) in June of 2009. Information used to prepare this ARR was obtained from the PA and SI reports as well as from additional sources cited in Section 12 of this document.

2.0 OBJECTIVES

Contamination of groundwater at the site has been documented by previous groundwater sampling performed in conjunction with the investigation of a leaking underground storage tank (LUST) site. The purpose of this DERR sampling event was to determine if hazardous substances continue to be present at the site or if they have migrated, or are migrating, off-site and if they pose a potential threat to human health and the environment. The scope of this SI included an on-site reconnaissance, identification and evaluation of potential exposure routes, the taking of photographs, and the collection of groundwater and soil samples. The findings outlined in this report provide information to help support decisions regarding the need for further action at the site.

The objectives of this SI were to:

- Determine present site conditions including the presence/absence of contaminated substances;
- Assess the potential contaminant characteristics;
- Assess the potential routes for contaminant migration;
- Identify human and environmental targets in the vicinity of the site that may be affected;
- Assess the suspected exposure pathways; and
- Determine the need for additional work under CERCLA or other authority.

3.0 SITE LOCATION AND DESCRIPTION

The Block 35 Methylene Chloride Plume site is located between 500 and 600 South and between State Street and 200 East in Salt Lake City, Utah (Figure 1). The general address for this site is 531 South State Street, Salt Lake City, Utah. The area encompasses one city block and has historically been referred to as "Block 35." However, it was recently discovered on several ALTA/ACSM land title survey maps that Block 35 is actually one block east and one block north of the site. This discrepancy was communicated to EPA, Region 8 and a memorandum dated June 18, 2009 was added to the DERR file noting this new change. However, in order to maintain continuity for this CERCLA site, it will hereafter continue to be referred to as the Block 35 Methylene Chloride Plume. The geographical coordinates for the site are 40° 45' 27" North Latitude and 111° 53' 13" West Longitude. The elevation of the site is approximately 4,250 feet above mean sea level.

The site is located in downtown Salt Lake City in a business district that is zoned as D-2 Downtown Support District by the City of Salt Lake (Salt Lake City, 2009). Automobile dealerships and service centers owned by Garff Family, LLC (Salt Lake County Assessor, 2010) encompass nearly all of the city block. There are also two auto repair businesses not owned by Garff called Safety Brakes and New Era Garage that are not in business and these buildings appear abandoned. Historically, the Ken Garff Oldsmobile Paint Shop was located at 566 South 200 East (UDEQ/DSHW, 2009). This shop was located in the southeast quadrant of the block just off 200 East.

To reach the site from Salt Lake International Airport, take I-80 East for a distance of 3.6 miles. Then exit on UT-269E/W 600 S and travel one mile to the intersection of South State Street and 600 South. This is the southwest corner of Block 35.

4.0 SITE HISTORY AND PREVIOUS WORK

4.1 Site History

In 1990, four underground storage tanks (USTs) containing used oil were excavated and removed and seven USTs were upgraded at Garff Enterprises Inc. automobile dealerships and service centers located on Block 35 in Salt Lake City. The tank removal, tank upgrade, and soil and water sampling were performed by Reed Peterson Service (RPS) of Salt Lake City, Utah. During the removal of a 4000-gallon used oil UST located near the northeast corner of the property, groundwater was encountered. Two water samples were collected at the excavation site by RPS and a release of gasoline and used oil was identified. A monitoring well (MW #1) was then installed three feet west of the tank removal excavation site and was drilled to a depth of 21.5 feet. Soil and water samples were analyzed and identified concentrations of oil and grease, gasoline, benzene, toluene, ethylbenzene, and total xylenes (UDEQ/DERR, 2000).

In July of 1992, two additional groundwater monitoring wells were installed (MW #2 and MW #3) by RPS. A gasoline station with three USTs was located on the "Honda Sales"

area of the property in the early 1980s. Honda Sales was historically located on the northeast quadrant of the city block. Currently this is a closed leaking underground storage tank (LUST) site. All three monitoring wells are located in the northeast quadrant of Block 35 (UDEQ/DERR, 2000).

In February 1997 and again in January 2000, LUST site files show that DERR requested additional monitoring for chlorinated solvents before site closure could be authorized. Groundwater sampling from MW #1 was performed on March 16, 1999 (UDEQ/DERR, 2009a). Analytical laboratory results for chlorinated solvents identified a concentration of 78.6 µg/L of methylene chloride (UDEQ/DERR, 2000). The Superfund Chemical Data Matrix (SCDM) maximum contaminant level (MCL) for methylene chloride in drinking water is 5 µg/L (SCDM, 2004).

In April 2000, DERR closed the LUST case after the site had been properly remediated for petroleum products. However, DERR notified Ken Garff Enterprises in a letter dated April 28, 2000 that methylene chloride was detected in the groundwater and the case was being referred to UDEQ's Division of Solid and Hazardous Waste (DSHW). DSHW subsequently sent a letter to Ken Garff International on May 16, 2000 informing them of the methylene chloride contamination in the groundwater and the need to perform site clean-up work (UDEQ/DERR, 2000). DERR contacted DSHW in September 2008 to ascertain if any cleanup work had been performed. DSHW investigated their files and reported to DERR that Ken Garff International never responded to their letter of May 16, 2000 and no further communication had since taken place with them (Moore, 2008). Subsequently, DERR contacted Mark Macintosh at Ken Garff International to whom the May 16, 2000 letter was sent. He claimed that he never received the letter from DSHW.

4.2 Previous Work

Based on the groundwater sample results that were collected on March 16, 1999 in which methylene chloride was detected at the site at a concentration of 78.6 µg/L, a groundwater investigation and sampling event was conducted by DERR on July 14-15, 2009. This included the collection of groundwater and soil samples on Block 35 and the surrounding area. The scope of work for the sampling event for this ARR was based on the DERR SI Work Plan approved by the EPA on June 2, 2009 and available for review in the DERR office files.

Sample collection and site reconnaissance was conducted by Kim Viehweg of the DERR. All sampling activities were conducted in accordance with applicable State and EPA guidance and the SI work plan. Before work began on July 14, 2009, a site-specific Health and Safety Plan (HASP) was reviewed by all personnel present at the site. The HASP establishes requirements and procedures to protect the health and safety of investigative personnel and the nearby public.

Sampling involved the collection of a total of 11 groundwater samples and 9 soil samples (including field duplicates for both) from the site and area of influence. Two of the groundwater samples were from existing monitoring wells. One groundwater sample was

collected at the site of a public artesian drinking water well. On Block 35, groundwater and soil samples were collected at the approximate sites where the former LUSTs and the former paint shop were located and samples were collected downgradient from these locations. One background sample was also collected upgradient from the site.

The DERR Field Activities Report describes the sampling operations and is included in Appendix A along with a photolog of the sampling event. Permission to sample at all sample sites was obtained by the project manager prior to sampling. Property owners or authorized personnel were asked to sign Grant of Access to Property forms and these forms are included in Appendix B.

There were three deviations from the work plan. These included the following:

1. The SI work plan originally called for the collection of groundwater and soil samples from Cannella's Restaurant located at 202 East 500 South. This restaurant is across the street and upgradient from Block 35. A Grant of Access to Property form was signed by the property owner on February 4, 2009. However, on July 7, 2009, the property owner informed DERR that he no longer wished to have drilling take place on his property. DERR complied with his wishes.

2. To facilitate easier access for the drill rig, three sample locations were relocated a few feet from their original locations as shown in SI Work Plan (Appendix C). These were the Salt Lake City Public Health Center (Blk35-GW/SO-07), the southwest parking lot of Block 35 (Blk35-GW/SO-06), and Decades Clothing Store (Blk35-GW/SO-10). All sample locations for the July 2009 sampling event can be seen in Figures 2 and 3 of this report.

3. Hydrochloric acid was not used in several of the groundwater samples due to excessive bubbling formation. These samples were immediately placed on ice, maintained at a temperature of 4° Celsius, and were shipped to the CLP laboratory within the allowable holding time of seven days.

4.3 Site Characteristics

4.3.1 Physical Geography and Climate

The site is located in downtown Salt Lake City and in a business/commercial district. The site terrain consists mainly of asphalt and concrete parking lots, sidewalks, commercial structures, and thin strips of grassy/vegetated areas. There is also a park-like grassy area surrounding the Salt Lake City and County Buildings one block to the north of Block 35. Salt Lake City and Block 35 are located in an arid climate. Meteorologic conditions at the site vary depending upon season and location of passing storm fronts. Meteorologic data was obtained from the Salt Lake City NWSFO weather station (#427598) for the period 1948-2007. The average maximum and minimum annual temperatures are 63.9° F and 40.4° F, respectively. The average annual total precipitation

is 15.68 inches and the average annual total snowfall is 60.3 inches with an average snow depth of zero inches (WRCC, 2009).

4.3.2 Geology and Hydrogeology

Soil profile information was obtained from the Ken Garff Honda closed LUST site file located in the DERR office. Laboratory analysis of the soil samples collected during tank removal indicate that clayey silt, silty sand and elastic silt are found at depths between 8-10 feet across the site. Clay with thinly interbedded units of sand was found near the northeast comer of the site (UDEQ/DERR, 2000).

Groundwaters of Salt Lake Valley are distinguished into four aquifers located in basin-fill deposits of primarily Quaternary and late Tertiary age (Hely, et al., 1971). The groundwater regime is composed of (1) a shallow unconfined aquifer, (2) a confined (artesian) aquifer underlying the shallow unconfined aquifer, (3) a deep-unconfined aquifer between the confined aquifer and the mountains, and (4) unconfined perched aquifers. The artesian aquifer and the deep unconfined aquifers together constitute the primary source of most groundwater, also recognized as the principal aquifer. All of the unconsolidated water-bearing materials in the valley are connected hydraulically to some degree; thus, together they compose the groundwater reservoir of the Salt Lake Valley (Seiler and Waddell, 1984). In general groundwater flow is from the mountain fronts toward the Jordan River and subsequently to the northwest toward the Great Salt Lake (Anderson, et al., 1994).

The primary recharge areas for the principal aquifer are mountain fronts on the eastern and western sides of the valley. The site is located in a secondary recharge area characterized by a shallow-unconfined aquifer where a confining layer is present between the land surface and the principal aquifer (Anderson, et al., 1994). Because of the poor chemical quality of the shallow-unconfined aquifer, it is seldom used for drinking water supply (Waddell, et al., 1987). During the July 2009 sampling event, depth to groundwater at the site and surrounding area was measured from 8.2 feet to 18.5 feet below ground surface (bgs). Groundwater flow has been determined to flow slightly west of a due south direction (UDEQ/DERR, 2000).

4.3.3 Hydrology

The Jordan River is approximately 1.9 miles west and downgradient from the site. There are several creeks that are over one mile distant and upgradient from the site. These are City Creek (1.3 miles north), Parleys Creek (2.7 miles southeast), Emigration Creek (2.5 miles southeast) and Red Butte Creek (1.8 miles southeast). The site is relatively flat with a slight southwest slope and is located in an arid environment. Any runoff would likely be collected by the city's storm drain system and discharged into the Jordan River. The Jordan River flows north to the Great Salt Lake which is approximately 12.5 miles downgradient from the site. Additionally, the site is listed as Zone X on available flood maps and considered to be outside of the 500 year flood plain (FEMA, 2010).

5.0 PRELIMINARY PATHWAY ANALYSIS

5.1 Waste Source Characterization

The source material, methylene chloride, was likely to be present below the ground surface at the site. Methylene chloride (also known as dichloromethane) is a chlorinated solvent regulated by DSHW due to its toxicity to humans and the environment. It is a colorless liquid with a mild, sweet odor. Methylene chloride does not occur naturally in the environment. It is used as an industrial solvent and as a paint stripper. It may also be found in some aerosol and pesticide products and is used in the manufacture of photographic film. It is mainly released to the environment by evaporation. About half of methylene chloride in air disappears in 53 to 127 days. It does not easily dissolve in water. The most likely exposure pathway is by breathing vapors in the air given off by products containing methylene chloride. However, exposure can also occur when contaminated food or water is consumed. It can also be absorbed through skin contact.

Exposure to high levels of methylene chloride is likely if methylene chloride or a product containing it is used in a room with inadequate ventilation. Breathing in large amounts of this contaminant may make a person feel unsteady, dizzy, and have nausea and a tingling or numbness of the fingers and toes. A person breathing smaller amounts of methylene chloride may become less attentive and less accurate in tasks requiring hand-eye coordination. Skin contact with methylene chloride causes buming and redness of the skin. The World Health Organization (WHO) has determined that methylene chloride may cause cancer in humans (ATSDR, 2001).

The following sections examine the four pathways (surface water, groundwater, air and soil) for this site and a conceptual site model is included as Figure 4.

6.0 SURFACE WATER AND SEDIMENT PATHWAY

6.1 Attribution and Surface Water/Sediment Targets

Potential targets for surface water include 318 surface points of diversion (PODs) within a four-mile radius, the Jordan River, wetiands along the river, and various species of animal and plant life (UDEQ/DERR, 2009b). Fish present in the downstream segment of the Jordan River are mainly carp, catfish, walleye, white bass, and occasionally rainbow trout (UDEQ/DERR, 1997; Pettengill, 1997). The Jordan River has approximately 200 acres of wetlands along its banks. It is home to various species of waterfowl and is used by some as a warm water fishery. Water from the river is used for irrigation and stock watering purposes (UDEQ/DERR, 2001).

Most of the area around the site is covered with asphalt, pavement, and structures. There is a park-like area across the street to the north of Block 35 that is covered with grass and trees surrounding the Salt Lake City and County buildings. The area around the site is relatively flat and the Jordan River is almost two miles west and downgradient from the site. Since the area is largely covered, most of the surface runoff is collected in the city

storm drains. Because of these factors, the surface water pathway was considered unlikely to be impacted from contaminants of concern. Therefore, no surface water or sediment samples were collected during the 2009 sampling event.

7.0 GROUNDWATER PATHWAY

7.1 Groundwater Sample Locations

Eleven groundwater samples were collected (including one duplicate field sample) from the Block 35 property and surrounding vicinity. A trip blank was also collected from the DERR office at the start of the sampling event. Samples were collected from predetermined locations as outlined in the SI work plan. Two of these samples were collected from the well heads of existing monitoring wells and the rest were collected from direct-push borings. One groundwater sample was collected from the shallow aquifer adjacent to the nearest drinking water well to the site. This well is called the Eighth South Well and it is a noncommunity-nontransient water system that is located 0.65 miles southeast of the site. It is also an aboveground artesian well and public fountain. Analytical lab results for groundwater collected from this well obtained by the City of Salt Lake on February 17, 2010 were non-detect for methylene chloride (Appendix D). All sample locations are shown on Figures 2 and 3 and the sample IDs, locations and descriptions are summarized on Table 1.

7.2 Groundwater Analytical Results

The analytical results from the July 2009 sampling event confirm the presence of chlorinated solvents in the shallow aquifer.

Analytical results from the field samples are compared to screening standards in an attempt to determine risk. There are three benchmark values applicable to groundwater. These are: 1) Maximum Contaminant Level/Maximum Contaminant Level Goal (MCL/MCLG), 2) Screening Concentration for Cancer Risk, and 3) Screening Concentration for Non-Cancer Toxicological Responses. The lowest of these benchmark values is the one that is used to determine Hazard Ranking System (HRS) scores. These scores are used to determine if a site is a potential candidate for the National Priorities List.

As specified by the Hazard Ranking System (HRS), analytical results from field samples are typically compared to analytical results from background sample(s) and to sample quantitation limits (SQL) for determining observed contamination. The criteria for determining observed contamination is as follows:

1. If the background concentration is not detected, observed contamination is established when the sample concentration equals or exceeds the sample quantitation limit; or

2. If the background concentration equals or exceeds the detection limit, observed contamination is established when the sample concentration "significantly exceeds" the background concentration. Generally, "significantly exceeds" is defined to be situations where the sample concentration exceeds the background concentration by at least three times.

In the groundwater samples that were submitted to the CLP laboratory, only one of the 52 VOCs that were analyzed was above the SCDM benchmarks. This VOC was benzene and it was detected at a dilute value of 81 pg/L. This level exceeds the MCL/MCLG benchmark of 5 pg/L and the SCDM Cancer Risk benchmark of 1.5 µg/L. This groundwater sample was collected at the Salt Lake City Library (Blk35-GW-08) which was the background sample. When this sample was collected on July 14, 2009, the URS START team reported that a black oily substance with a foul petroleum odor was encountered at a depth of 11-12 feet bgs. This is likely related to the removal of two 4000-gallon gasoline LUSTs in 2001 that were located at 417 South 300 East and were across the street to the east of this sample site. DERR closed this LUST site on 11/21/2001 (UDEQ/DERR, 2010). Of note, cyclohexane was detected at 100 µg/L; however, this analyte has no SCDM benchmark values and is well below the risk–based screening levels (RBSL) of 1.3E+04 pg/L. Methylene chloride was not detected in this background sample.

Estimated methylene chloride concentrations ("J" qualified results) were detected in 4 of the 12 groundwater samples collected; however, all results were well below SCDMs and RBSLs ranging from 0.28 pg/L to 0.98 µg/L in the field. The trip blank had a concentration of 1.8 pg/L. Methylene chloride was non-detect in seven of the groundwater samples and no qualifier was provided on one of the groundwater samples. The SCDM benchmark values for methylene chloride in groundwater are as follows: MCL/MCLG is 5 pg/L, Non-Cancer Risk is 2,200 pg/L, and the SCDM Cancer Risk is 11 µg/L. The VOC data results for groundwater are presented in Table 2.

7.3 Attribution and Groundwater Targets

There are 23 water wells identified in the Utah Department of Environmental Quality/Division of Drinking Water (UDEQ/DDW) database within four miles of the site. Of these, 14 are active and nine are inactive. The wells serve seven public supply systems with a combined population of approximately 85,500 (UDEQ/DERR, 2009b).

Laboratory data from the 2009 sampling event showed levels of methylene chloride in all of the samples collected to be well below SCDM and RBSL benchmarks. The distance to the nearest drinking water well is approximately 0.65 miles southeast of the site and analytical results for methylene chloride in 2010 were non-detect. There are no municipal wells that are directly downgradient of the site. Based on these findings, there is a low likelihood that groundwater targets would be significantly impacted. Benzene and cyclohexane were detected in the background sample; however, the likely source of these contaminants is a nearby LUST site that was closed by DERR in 2001.

8.0 AIR PATHWAY

8.1 Attribution and Air Targets

The most likely exposure pathway for methylene chloride is by breathing the vapors given off by products containing it, such as industrial solvents or paint strippers. This might happen in a poorly ventilated room where these products are being used (ATSDR, 2001). It would not likely occur outside in the open air. The primary targets are the employees who work at one of the facilities on Block 35 or to a lesser extent, visitors or customers of the Garff automobile dealerships. Since the site is largely covered with asphalt, concrete, and structures, the air exposure pathway is of limited concern. Therefore, no air samples were collected during the 2009 sampling event.

9.0 SOIL EXPOSURE PATHWAY

9.1 Subsurface Soil Sample Locations

Nine soil samples were collected (including one duplicate field sample) on the Block 35 property and surrounding vicinity. These samples were collected from the same direct-push borings used to collect groundwater samples.

9.2 Subsurface Soil Analytical Results

There are two benchmark values applicable to soil. These are 1) Screening Concentration for Cancer Risk, and 2) Screening Concentration for Non-Cancer Toxicological Responses. In the soil samples that were submitted to the CLP laboratory, none of the 52 VOCs that were analyzed were above the SCDM benchmarks.

Methylene chloride was undetected in the soil ("U" qualified results). The SCDM benchmark values for methylene chloride in soil are as follows: SCDM Non-Cancer Risk is 4.7E+06 µg/kg and the SCDM Cancer Risk is 8.5E+04 µg/kg. The VOC data results for soil are presented in Table 3.

9.3 Attribution and Surface Soil Targets

The site is located in a commercial/retail area. Based on the direction of groundwater flow, the methylene chloride plume, if present, would likely underlie office buildings and retail businesses. The nearest residence is about ¼-mile east of the site. In addition, there are three schools that are a mile or less and downgradient from the site. These schools are Jefferson School (0.8 miles south-southwest), Lincoln Junior High School (1.0 mile south), and Liberty School (0.8 miles south-southeast), (USGS, 1999).

Laboratory data from the 2009 sampling event showed levels of methylene chloride in all of the samples collected to be non-detect. Given these laboratory findings, the likelihood that soil targets would be at risk is extremely small.

10.0 DATA QUALITY

10.1 Data Quality Assessment

All samples were placed into appropriate containers, labeled and sealed under chaih-of-custody protocols, stored on ice in coolers, and submitted to the CLP laboratory for analyses. All holding times, defined as the time between the date the sample was collected and the date the analysis was complete, were met. The holding time for VOCs is 14 days. However, some of the groundwater samples were not preserved with hydrochloric acid (HCl). These samples were placed on ice and the holding time for these samples was seven days (USEPA, 2007). All holding times and preservation criteria were met for all samples submitted to the CLP laboratory.

The Quality Assurance/Quality Control (QA/QC) samples that were collected included trip blanks collected on the first day of sampling, field duplicate samples for both groundwater and soil (labeled Blk35-GW/SO-06 and Blk-GW/SO-11), and MS/MSD samples for both groundwater and soil (labeled Blk35-GW/SO-04). Documentation procedures included the completion of all CLP forms and sample seals as required for routine analytical services (RAS) using Forms II Lite, an EPA developed software package. All samples were shipped via Federal Express to KAP Technologies Inc. in The Woodlands, Texas on July 16, 2009 and analyzed for VOCs as per CLP instructions. No inorganic samples were collected. Samples were retained under chain-of-custody until they were shipped to the laboratory for analysis. Chain of custody forms accompanied shipments to the laboratory. Copies of these forms and sample shipping information are included as Appendix E.

10.2 Data Quality Objectives

The EPA's START contractor, URS Consultants, Inc., performed data validation of the analyses. The data package was reviewed according to the EPA document "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," dated June, 2008. URS checked the accuracy of the analytical data and approximately 10-20% of the results reported in each of the samples, calibrations, and QC analyses were recalculated and verified. If problems were identified during the recalculation of results, a more thorough calculation check was performed. The reports are for Case Number 38726 and Sample Delivery Groups (SDGs) H2FT0 and H2FW1. The data package, SDG No. H2FT0 consisted of 12 water samples for CLP trace volatile organic analyses by SOM01.2. The data package, SDG No. H2FW1 consisted of nine soil samples for CLP volatile organic analyses by SOM01.2. URS noted that all data is acceptable with qualifications noted in the review. The Data Validation Reports and Laboratory Analytical Results are included in Appendix F.

11.0 SUMMARY

Methylene chloride was detected in a groundwater sample that was collected on March 16, 1999 in connection with the closure of a LUST site on Block 35. The SI work plan

for this site targeted specific areas for sampling based on historical information and direction of groundwater flow. In July 2009, DERR collected groundwater and soil samples from Block 35 and the surrounding vicinity. Surface water and air samples were not collected based on the low probability that the targets for these pathways would be impacted. Analytical laboratory results from this sampling event confirmed the presence of benzene but no other VOCs were detected above SCDM or RBSL benchmark values. The benzene was detected at the Salt Lake City Library which was the "background" groundwater sampling location. This sample was black in color and had a foul petroleum odor to it. The likely source of this contamination is two LUSTs that were located across the street to the east. In 2001, these tanks were removed and DERR closed this site.

At a distance of 0.65 miles southeast of Block 35, Eighth South Well is the nearest drinking water well to the site. Methylene chloride was detected at a "J" value of 0.98 µg/L at this location. This is well below the SCDM benchmark values for methylene chloride. In addition, all other VOC values for this well were below SCDM benchmark values and were reported as either undetected ("U" value) or the reported concentration was an estimated value ("J" value). There are no municipal wells that are directly downgradient of the site.

In summary, laboratory data from the 2009 sampling event showed levels of methylene chloride in all of the samples collected to be well below SCDM and RBSL benchmarks for groundwater and non-detect for soil. The likelihood of target exposure in all four pathways is therefore of limited concern.

12.0 LIST OF REFERENCES

ATSDR (Agency for Toxic Substances and Disease Registry); 2001, ***ToxFAQs™ for Methylene Chloride***, ATSDR web site: http://www.atsdr.cdc.gov/toxfaq.html.

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Figures

0 0.375 0.75 1.5 2.25 Miles

Legend

- Block 35 Methylene Chloride Plume site
- Major Roads
- Water Courses

N W E S

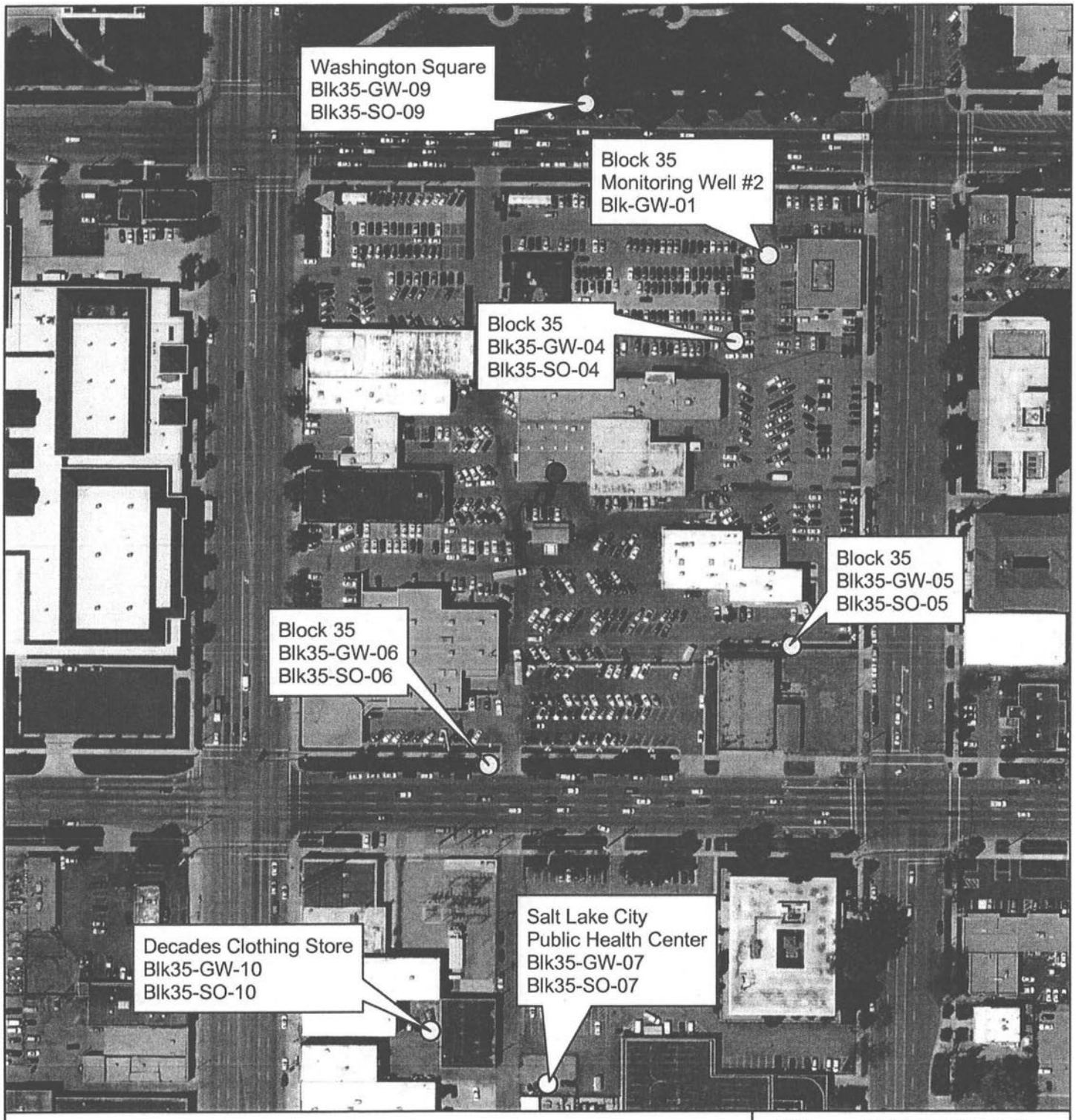
Base Map: United States Geological Survey topographic map, 1999

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Figure 1
Area of Influence

Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 9/07/10



0 135 270 540 810 Feet

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Legend

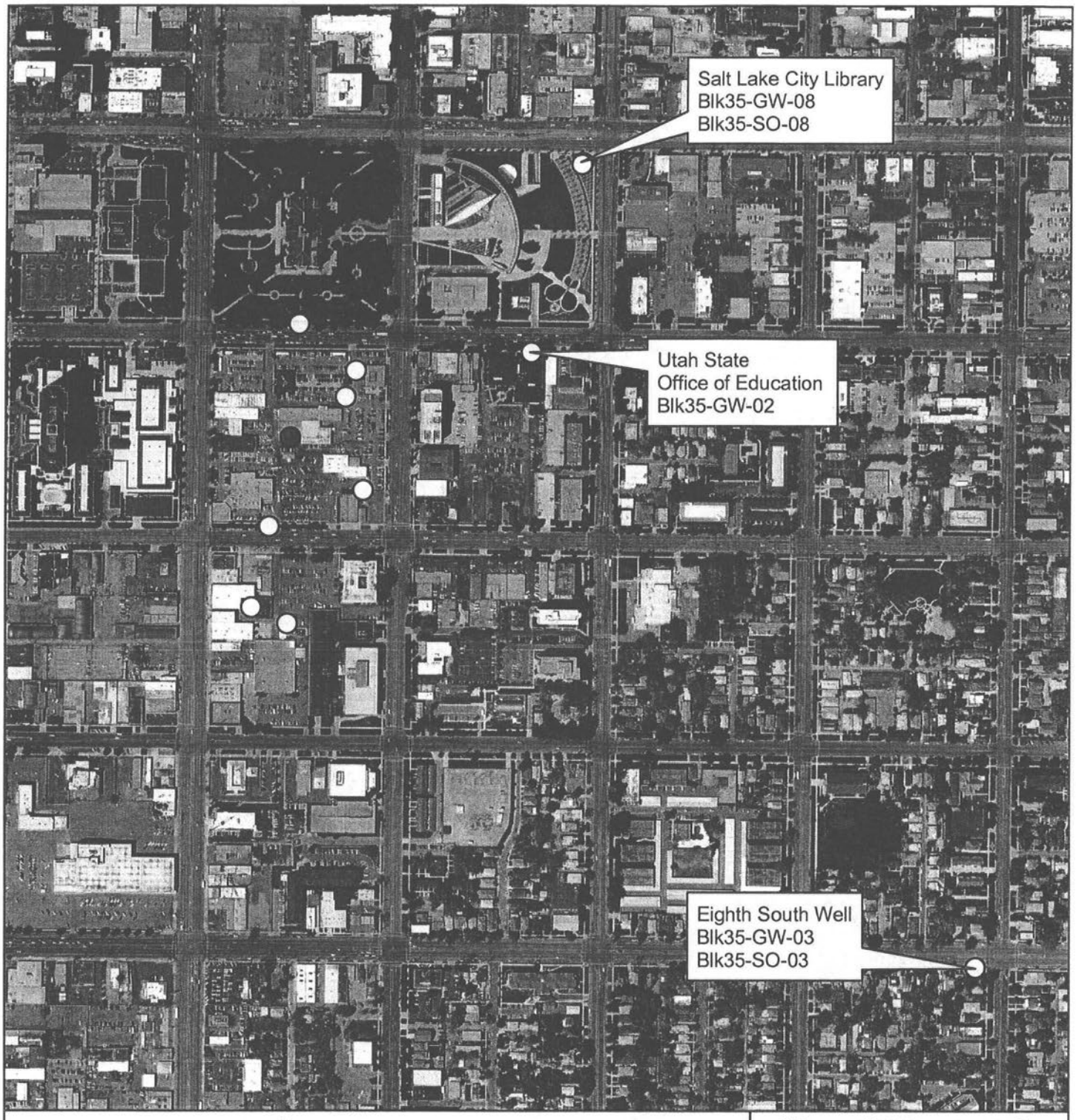
- Block 35 Methylene Chloride Plume site
- Groundwater and Soil Sample Locations

N
W E
S

Aerial photograph obtained from the State of Utah GIS database, 2006

Figure 2
Site Sampling Locations
(Map 1)
Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 9/07/10



0 0.125 0.25 0.5 Miles

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Legend

- Block 35 Methylene Chloride Plume site
- Groundwater and Soil Sample Locations

N
W E
S

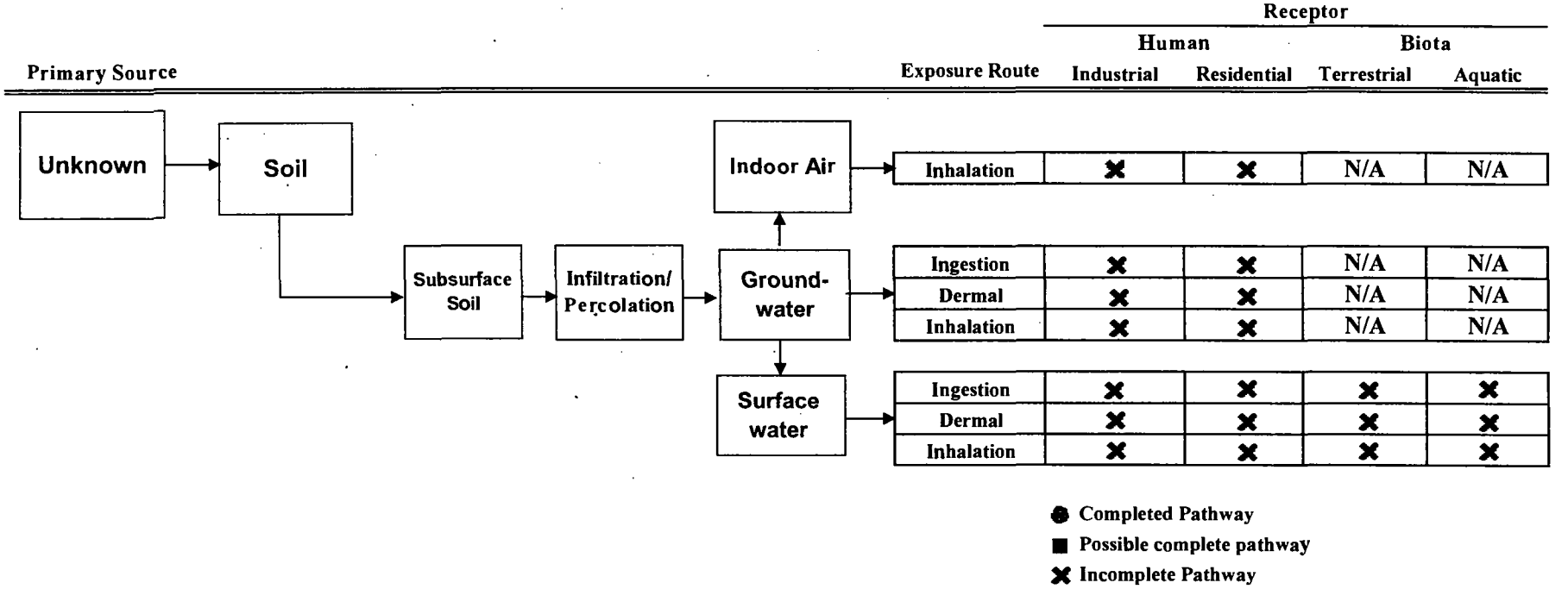
Aerial photograph obtained from the State of Utah GIS database, 2006

Figure 3
Site Sampling Locations
(Map 2)
Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 9/07/10

Figure 4

Block 35 Methylene Chloride Plume ARR - Conceptual Site Model



Tables

Table 1

Sample IDs, Locations and Descriptions
Block 35 Methylene Chloride Plume

Field Sample No.	Matrix	Container[1]	Location	Rationale	VOCs	QA/QC
Blk35-GW-01	Water	40 mL Vials	Block 35 Monitoring Well #2	Test for VOCs	X	
Blk35-GW-02	Water	40 mL Vials	Utah Education Bldg. Monitoring Well #2	Test for VOCs	X	
Blk35-GW-03 Blk35-SO-03	Water/Soil	40 mL Vials Glass Jars	Eighth South Well	Test for VOCs	X	
Blk35-GW-04, Blk35-SO-04	Water/Soil	40 mL Vials, Glass Jars	Block 35 Parking Lot North End	Test for VOCs	X	MS/MSD[2]
Blk35-GW-05, Blk35-SO-05	Water/Soil	40 mL Vials, Glass Jars	Block 35 Parking Lot SE Corner	Test for VOCs	X	
Blk35-GW-06, Bik35-SO-06	Water/Soil	40 mL Vials, Glass Jars	Block 35 Parking Lot SW Corner	Test for VOCs	X	
Blk35-GW-07, Blk35-SO-07	Water/Soil	40 mL Vials, Glass Jars	Salt Lake Public Health Center	Test for VOCs	X	
Blk35-GW-08, Blk35-SO-08	Water/Soil	40 mL Vials, Glass Jars	Salt Lake City Library	Test for VOCs	X	Background
Blk35-GW-09 Blk35-SO-09	Water/Soil	40 mL Vials, Glass Jars	Washington Square	Test for VOCs	X	
Blk35-GW-10 Blk35-SO-10	Water/Soil	40 mL Vials, Glass Jars	Decades Clothing Store	Test for VOCs	X	
Blk35-GW-11 Blk35-SO-11	Water/Soil	40 mL Vials, Glass Jars	Block 35 Parking Lot SW Corner	Test for VOCs	X	Blind Duplicate[2]
Blk35-GW-12	Water	40 mL Vials	Cooler	Detect Introduced Contamination	X	Trip Blank

[1] Soil samples require one 4-oz glass jar for each analysis.
[1] Water samples require three 40 mL glass vials preserved with HCL for VOC analysis.
[2] Blind Duplicate for water and soil will be labeled on the Chain of Custody as a separate sample.
[2] MS/MSD requires triple volume for VOCs in water sample.

Table 2. Volatile Organics Data Results for Groundwater at the Block 35 Methylene Chloride Plume.

	Sample #	Superfund Chemical Data Matrix			Blk35-GW-08		Blk35-GW-01		Blk35-GW-02		Blk35-GW-03		Blk35-GW-04		Blk35-GW-05		Blk35-GW-06		Blk35-GW-07		Blk35-GW-09		Blk35-GW-10		Blk35-GW-11		Blk35-GW-12	
	EPA Sample #				H2FT7		H2FT0		H2FT1		H2FT2		H2FT3		H2FT4		H2FT5		H2FT6		H2FT8		H2FT9		H2FW0		H2FX0	
	Sample Location	MCL / MCLG	Screening Concentration for Non-Cancer Toxicological Responses	Screening Concentration for Cancer	Salt Lake City Library (Background Sample)		Block 35 Monitoring Well		Utah Education Bldg. Monitoring Well #2		Eighth South Well		Block 35 Parking Lot North End		Block 35 Parking Lot SE Corner		Block 35 Parking Lot SW Corner		Salt Lake Public Health Center		Washington Square		Decades Clothing Store		Block 35 Parking Lot SW Corner (Blind Duplicate)		DI Water from the DERR office	
	Sample Date	--	--	--	07/14/09		07/14/09		07/14/09		07/15/10		07/14/09		07/14/10		07/15/10		07/14/09		07/15/10		07/15/10		07/15/10		07/14/09	
	Sample Time	--	--	--	09:55		14:50		16:30		12:35		14:15		15:50		07:50		12:05		09:35 & 13:00		10:55		07:50		07:30	
	Sample Type	--	--	--	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		QA/QC	
	Depth to GW	SCDM [1]	SCDM [2]	SCDM [3]	9.5 ft.		11.7 ft.		12.4 ft.		8.2 ft.		11.4 ft.		9.8 ft.		10.5 ft.		9 ft.		17.5 ft.		18.5 ft.		10.5 ft		N/A	
Cas No.	analyte	µg/l	µg/l	µg/l	µg/l	Q	µg/l	Q	µg/l	Q	µg/l	Q	µg/l	Q	µg/l	Q	µg/l	Q	µg/l	Q	µg/l	Q	µg/l	Q	µg/l	Q	µg/l	Q
75-71-8	Dichlorofluoromethane	--	--	--	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U
74-87-3	Chloromethane	--	--	--	0.5	U	14		4.1	J	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	12	B
75-01-4	Vinyl Chloride	2	110	0.057	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
74-83-9	Bromomethane	--	--	--	0.5	UJ	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
75-00-3	Chloroethane	--	--	--	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U
75-69-4	Trichlorofluoromethane	--	11,000	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
75-35-4	1,1-Dichloroethene	7	1,800	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
67-64-1	Acetone	--	33,000	--	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	11		4.6	J	5	U	63	
75-15-0	Carbon Disulfide	--	3,700	--	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U
79-20-9	Methyl Acetate	--	--	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
75-09-2	Methylene Chloride	5	2,200	11	0.5	U	0.54		0.28	J	0.98	J	0.55	J	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U	1.8	U
156-60-5	trans-1,2-Dichloroethene	100	730	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1634-04-4	Methyl-tert-Butyl Ether	--	--	--	1.7		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
75-34-3	1,1-Dichloroethane	--	3,700	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
156-59-2	cis-1,2-Dichloroethene	70	360	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	5		0.5	U	0.5	U	0.5	U
78-93-3	2-Butanone (MEK)	--	--	--	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	22	
74-97-5	Bromochloromethane				0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
67-66-3	Chloroform	--	360	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
71-55-6	1,1,1-Trichloroethane	200	--	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
110-82-7	Cyclohexane	--	--	--	100	D	0.5	J	16	J	0.5	U	0.93	J	0.5	U	0.49	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
56-23-5	Carbon Tetrachloride	5	26	0.66	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
71-43-2	Benzene	5	150	1.5	81.0	D	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
107-06-2	1,2-Dichloroethane	5	--	0.94	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
123-91-1	1,4-Dioxane	--	--	--																						
79-01-6	Trichloroethene (TCE)	5	--	7.7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.25	J	0.5	U	0.5	U
108-87-2	Methylcyclohexane	--	--	--	13	J	0.5	U	0.5	U	0.5	U	23	D	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
78-87-5	1,2-Dichloropropane	5	--	1.3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
75-27-4	Bromodichloromethane	--	730	1.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
10061-01-5	cis-1,3-Dichloropropene	--	--	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
108-10-1	4-Methyl-2-Pentanone	--	2,900	--	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
108-88-3	Toluene	1,000	7,300	--	2.6	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	2.4	
10061-02-6	trans-1,3-Dichloropropene	--	--	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
79-00-5	1,1,2-Trichloroethane	3	150	1.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
127-18-4	Tetrachloroethene (PCE)	5	360	1.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
591-78-6	2-Hexanone	--	--	--	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
124-48-1	Dibromochloromethane	--	--	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
106-93-4	1,2-Dibromoethane	--	--	0.001	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
108-90-7	Chlorobenzene	100	730	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
100-41-4	Ethylbenzene	700	3,700	--	0.5	U	0.62		2.4	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
179601-23-1	m,p-Xylene	--	--	--	0.41	J	0.28	J	0.59	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
95-47-6	o-Xylene	10,000	--	73,000	0.91	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
100-42-5	Styrene	100	7,300	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.53	
75-25-2	Bromoform	--	--	--	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
98-82-8	Isopropylbenzene (Cumene)	--	3,700	--	11	J	15		8.5	J	0.5	U	6.2	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	--	--	0.43	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
541-73-1	1,3-Dichlorobenzene	--	--	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
106-46-7	1,4-Dichlorobenzene	75	--	3.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
95-50-1	1,2-Dichlorobenzene	--	--	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
96-12-8	1,2-Dibromo-3-chloropropane	0.2	--	0.061	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
120-82-1	1,2,4-Trichlorobenzene	70	360	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
87-61-6	1,2,3-Trichlorobenzene	--	--		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

[1] MCL/MCLG = Maximum Contaminant Limit / Maximum Contaminant Limit Goal

[2] SCDM Non-Cancer Risk = Superfund Chemical Data Matrix, Screening Concentration for Non-Cancer Toxicological Responses, 1/04.

[3] SCDM Cancer Risk = Screening Concentration for Cancer Risk, 1/04.

Q = Data Qualifier

U = Undetected. Reported value is the detection limit.

J = Reported concentration is an estimated value.

B - Compound was detected in the Method Blank.

D - Reported value for the analyte was reanalyzed from a dilute of the original sample to bring analyte within instrument calibration or to remove matrix interferences.

Observed Contamination

Observed Contamination and exceeds SCDM Benchmark

Table 3. Volatile Organics Data Results for Soil at the Block 35 Methylene Chloride Plume.

	Sample #	Superfund Chemical Data Matrix		Blk35-SO-08		Blk35-SO-03		Blk35-SO-04		Blk35-SO-05		Blk35-SO-06		Blk35-SO-07		Blk35-SO-09		Blk35-SO-10		Blk35-SO-11	
	EPA Sample #			H2FW6		H2FW1		H2FW2		H2FW3		H2FW4		H2FW5		H2FW7		H2FW8		H2FW9	
	Sample Location	Screening Concentration for Non-Cancer Toxicological Responses	Screening Concentration for Cancer	Salt Lake City Library (Background Sample)		Eighth South Well		Block 35 Parking Lot North End		Block 35 Parking Lot SE Corner		Block 35 Parking Lot SW Corner		Salt Lake Public Health Center		Washington Square		Decades Clothing Store		Block 35 Parking Lot SW Corner (Blind Duplicate)	
	Sample Date			07/14/10		07/15/10		07/14/10		07/14/10		07/15/10		07/14/10		07/15/10		07/15/10		07/15/10	
	Sample Time			09:15		12:20		14:00		15:30		07:35		11:50		08:40		10:30		07:35	
	Sample Type	SCDM [1]	SCDM [2]	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Cas No.	Analyte	ug/kg	ug/kg	ug/kg	Q	ug/kg	Q	ug/kg	Q	ug/kg	Q	ug/kg	Q	ug/kg	Q	ug/kg	Q	ug/kg	Q	ug/kg	Q
75-71-8	Dichlorodifluoromethane	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
74-87-3	Chloromethane	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
75-01-4	Vinyl Chloride	2.3E+05	4.3E+02	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
74-83-9	Bromomethane	--	--	5.4	U	6.4	UJ	5.7	UJ	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
75-00-3	Chloroethane	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
75-69-4	Trichlorofluoromethane	2.3E+07	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
75-35-4	1,1-Dichloroethene	3.9E+06	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
67-64-1	Acetone	7.0E+07	--	11	U	13	U	24	U	13	U	12	U	9	J	12	U	12	U	12	U
75-15-0	Carbon Disulfide	7.8E+06	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
79-20-9	Methyl Acetate	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
75-09-2	Methylene Chloride	4.7E+06	8.5E+04	11	U	6.4	U	5.7	U	22	U	23	U	9.4	U	16	U	12	U	13	U
156-60-5	trans-1,2-Dichloroethene	1.6E+06	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
1634-04-4	Methyl-tert-Butyl Ether	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
75-34-3	1,1-Dichloroethane	3.9E+06	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
156-59-2	cis-1,2-Dichloroethene	7.8E+05	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
78-93-3	2-Butanone (MEK)	4.7E+07	--	11	U	13	U	11	U	13	U	12	U	12	U	12	U	12	U	12	U
74-97-5	Bromochloromethane	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
67-66-3	Chloroform	7.8E+05	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
71-55-6	1,1,1-Trichloroethane	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
110-82-7	Cyclohexane	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
56-23-5	Carbon Tetrachloride	5.5E+04	4.9E+03	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
71-43-2	Benzene	3.1E+05	1.2E+04	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
107-06-2	1,2-Dichloroethane	--	7.5E+00	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
123-91-1	1,4-Dioxane	--	--	110	U	130	U	110	U	130	U	120	U	120	U	120	U	120	U	120	U
79-01-6	Trichloroethene (TCE)	--	5.8E+04	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
108-87-2	Methylcyclohexane	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
78-87-5	1,2-Dichloropropane	--	9.4E+03	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
75-27-4	Bromodichloromethane	1.6E+06	1.0E+04	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
10061-01-5	cis-1,3-Dichloropropene	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
108-10-1	4-Methyl-2-Pentanone	6.3E+06	--	11	U	13	U	11	U	13	U	12	U	12	U	12	U	12	U	12	U
108-88-3	Toluene	1.6E+07	--	5.4	UJ	6.4	UJ	5.7	UJ	6.4	UJ	5.9	UJ	5.9	UJ	5.9	UJ	6.1	UJ	6	UJ
10061-02-6	trans-1,3-Dichloropropene	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
79-00-5	1,1,2-Trichloroethane	3.1E+05	1.1E+04	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
127-18-4	Tetrachloroethene	7.8E+05	1.2E+04	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
591-78-6	2-Hexanone	--	--	11	U	13	U	11	U	13	U	12	U	12	U	12	U	12	U	12	U
124-48-1	Dibromochloromethane	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
106-93-4	1,2-Dibromoethane	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
108-90-7	Chlorobenzene	1.6E+06	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
100-41-4	Ethylbenzene	7.8E+06	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
95-47-6	o-Xylene	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
179601-23-1	m,p-Xylene	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	3.3	J	6	U
100-42-5	Styrene	1.6E+07	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
75-25-2	Bromoform	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
98-82-8	Isopropylbenzene (Cumene)	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
79-34-5	1,1,2,2-Tetrachloroethane	--	3.2E+03	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
541-73-1	1,3-Dichlorobenzene	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
106-46-7	1,4-Dichlorobenzene	--	2.7E+04	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
95-50-1	1,2-Dichlorobenzene	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
96-12-8	1,2-Dibromo-3-chloropropane	--	4.6E+02	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
120-82-1	1,2,4-Trichlorobenzene	7.8E+05	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U
87-61-6	1,2,3-Trichlorobenzene	--	--	5.4	U	6.4	U	5.7	U	6.4	U	5.9	U	5.9	U	5.9	U	6.1	U	6	U

[1]SCDM Non-Cancer Risk = Superfund Chemical Data Matrix, Screening Concentration for Non-Cancer Toxicological Responses, 1/04.
[2]SCDM Cancer Risk = Screening Concentration for Cancer Risk, 1/04.

Q = Data Qualifier
U = Undetected. Reported value is the detection limit.
J = Reported concentration is an estimated value.
B - Compound was detected in the Method Blank.

Observed Contamination
Observed Contamination and exceeds SCDM Benchmark

Appendices

Appendix A

Field Activities Report and Photolog

FIELD ACTIVITIES REPORT
Block 35 Methylene Chloride Plume
July 14-15, 2009

1.0 INTRODUCTION

Sampling activities were conducted by the Utah Department of Environmental Quality/Division of Environmental Response and Remediation (UDEQ/DERR) at the Block 35 Methylene Chloride Plume Site from July 14-15, 2009 to assess the site for threats to human health and the environment resulting from the potential release of hazardous materials. This sampling was performed as part of a Site Inspection conducted by DERR and performed for the U.S. Environmental Protection Agency (EPA). Samples were collected from predetermined locations and media to document the presence or absence of contamination and assess the likelihood of potential off-site contamination migration. Work was conducted under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), in accordance with the National Oil and Hazardous Substances Contingency Plan (NCP).

Sampling was performed by DERR staff member Kim Viehweg. The EPA START crew that operated the hydraulic direct-push probe was Henry Schmelzer and Nate Williams of URS Corporation.

2.0 SITE DESCRIPTION

The Block 35 Methylene Chloride Plume Site is located in downtown Salt Lake City, Utah and encompasses one city block between 500 and 600 South and between State Street and 200 East. Garff Family, LLC owns several automobile dealerships and service centers that conduct business at this location. In 1990, four underground storage tanks (USTs) containing used oil located at Block 35 were excavated and removed. During the removal of a 4000-gallon used oil UST located near the northeast corner of the property, groundwater was encountered and samples were collected for analysis. Laboratory analysis of these samples revealed gasoline and used oil in the groundwater. Three monitoring wells were then installed. Groundwater sampling from monitoring well #1 for chlorinated solvents was performed on March 16, 1999. Analytical laboratory results detected a concentration of 78.6 µg/L of methylene chloride in the groundwater. This level exceeds the EPA's drinking water standard maximum contaminant level (MCL) of 5 µg/L. Groundwater at the site has been determined to flow south-southwest. The nearest municipal drinking water source, Eighth South Well, is located approximately 0.65 miles southeast of the Site. This is an artesian well and many people in the surrounding community bring containers and collect their drinking water from this well. The Jordan River is 1.9 miles west and downgradient from the Site.

3.0 SCOPE OF WORK

The scope of work was based on a Work Plan finalized by DERR and the EPA on June 2, 2009. It involved the collection of 11 groundwater, 9 subsurface soil samples, and a trip blank. Access to the Sites was arranged prior to sampling. Landowners signed a DERR "Grant of Access to Property" form. The property owner of Cannella's Restaurant had signed the Grant of Access to

Property form but later denied access to drilling on his property. As a result, one groundwater and one soil sample were not collected from the vicinity of the site as originally planned. A health and safety briefing was held for the benefit of DERR personnel, the EPA START contractors, and Tony Lopez (Department of Public Services, Parks Division, Salt Lake City) on the first day of sampling. No safety issues or problems were encountered during the sampling event.

Groundwater samples were collected using a hydraulic direct-push probe to extract groundwater once the water table was reached. Groundwater ranged anywhere from 8.2 – 18.5 feet below ground surface (bgs). Generally, an aqueous (groundwater) sample collected for VOC analysis is contained in two **40**-milliliter vials preserved with hydrochloric acid (HCl) and filled in a manner which allows no head space to remain; however, that was not the procedure that was followed for most of the groundwater samples during this sampling event. HCl could not be used as a preservative due to excessive bubbling, similar to carbonation, which occurred in the groundwater samples that were collected from all of the boreholes. Therefore, all groundwater samples taken from the boreholes were immediately placed on ice and shipped to the designated Contract Laboratory Program (CLP) lab within the holding time of seven days for samples without HCl. The holding time was confirmed with DERR personnel and Rao Alsakano at KAP Technologies Inc., the lab where the samples were sent. The groundwater samples that were collected from the monitoring wells did not demonstrate excess bubbling so HCl was used in these two samples. Soil samples analyzed for VOCs are generally contained in a four-ounce glass jar with no preservative. That is the procedure that was followed during this sampling event. A trip blank was prepared using deionized water prior to leaving the DERR offices and was carried in the cooler during the entirety of the sampling event.

Decontamination of boring equipment between probe borings was performed as necessary by the EPA START crew. All investigation-derived material was collected and disposed of in accordance with state and federal regulations and guidelines. Disposable sampling equipment was removed from the Site and disposed of as non-hazardous. Excess sample material was returned to its original location, as per the RCRA Groundwater Monitoring Technical Enforcement Guidance Document. QA/QC samples included a trip blank on the first day of sampling, one groundwater field duplicate, one soil field duplicate, a groundwater lab duplicate, and a soil lab duplicate.

All samples were placed into ice chests and preserved by cooling with ice to 4° Celsius, retained under chain-of-custody as prescribed by DERR CERCLA Quality Assurance Project Plan (QAPP) of May 1999, and shipped ovemight via FedEx to KAP Technologies lnc. in The Woodlands, Texas. Field notes and photographs were taken to document the sampling event and are included in this report, as are copies of the chains-of-custody and the signed "Grant of Access to Property" forms.

4.0 FIELD ACTIVITIES

TUESDAY, JULY 14, 2009

07:30 – Two QA/QC trip blank samples were collected by Kim Viehweg with deionized water at the DERR offices and preserved with HCl for the first day of sampling.

Borehole #1, (Blk35-08):

07:55 – Kim Viehweg met Henry Schmelzer and Nate Williams, EPA START crew, at the northeast comer of the Salt Lake City Library, the site of borehole number one. Weather conditions were sunny and cool, estimated at about 65°F.

08:00 – Tony Lopez arrived on-site. A health and safety briefing was conducted by Kim Viehweg and Henry Schmelzer. Signatures were obtained from Kim Viehweg, Henry Schmelzer, Nate Williams, and Tony Lopez.

09:05 – Henry informed me that during drilling, a black substance was encountered from 11-12 feet bgs. He surmised that there may have been a gas station at this location historically. The soil consisted mostly of clay and the black substance was intermixed with the clay. There was a foul petroleum odor to the soil.

09:15 – Soil sample **Blk35-SO-08** was collected as a background sample. Some of the black substance was collected in this sample.

09:55 – Two groundwater samples, **Blk35-GW-08**, were obtained. These samples were very muddy and had a slight odor. HCl could not be used due to excessive bubbling. Depth to water (DTW) was **9**.5 feet.

Borehole #2, (Blk35-07):

11:00 – On site at the Salt Lake City Public Health Center. Weather was sunny, breezy, and cool, estimated at 70°F.

11:50 – Soil sample **Blk35-SO-07** was collected that consisted of a clay-like material. DTW was approximately 9 feet bgs.

12:05 – Two groundwater samples, **Blk35-GW-07**, were obtained. These samples were muddy and silty in appearance. No HCl was used due to excessive bubbling.

Borehole #3, (Blk35-04):

13:25 – On site at the northeast comer of **Block** 35. Weather is sunny and warm, about 80°F, with a light breeze. Photo #3 was taken at this site.

14:00 – Two soil samples, **Blk35-SO-04**, were obtained for MS/MSD. Soil was clay-like and stained dark grey at 15 feet bgs. Soil samples were taken from this grey discolored area. DTW was 11.4 feet bgs.

14:15 – Six groundwater samples, **Blk35-GW-04**, were collected for MS/MSD. A foul petroleum odor was detected from the groundwater. No HCl was used due to excessive bubbling.

Monitoring Well #1, (Blk35-GW-01):

14:50 – Two groundwater samples, Blk35-GW-01, were obtained from monitoring well #2 on Block 35. Samples were clear. HCl was used due to no bubble formation. DTW was 11.7 feet bgs.

Borehole #4, (Blk35-05):

15:05 – On site at the southeast comer of Block 35.

15:30 – One soil sample, Blk35-SO-05, was obtained at a depth of 7.5-8 feet bgs from an area that is grey discolored. DTW was 9.8 feet bgs.

15:50 – Two groundwater samples, Blk35-GW-05, were obtained. These samples were muddy and silty. No HCl was used due to excessive bubbling.

Monitoring Well #2, (Blk35-GW-02):

16:15 – On site at the Utah State Board of Education building to collect groundwater samples from monitoring well #2. DTW was measured at 12.4 feet bgs.

16:30 – Two groundwater samples, Blk35-GW-02, were collected. Samples were clear and had a petroleum odor. HCl was used due to no bubble formation.

WEDNESDAY, JULY 15, 2009

Borehole #5, (Blk35-06):

07:00 – Met Henry Schmelzer and Nate Williams at the southwest comer of Block 35. Weather is sunny and cool, estimated at 60°F.

07:35 – Collected two soil samples, Blk35-SO-06, which consisted mostly of clay with a small amount of sand and gravel. One of these samples will be designated as blind duplicate Blk35-SO-11. DTW was 10.5 feet bgs.

07:50 – Collected four groundwater samples, with two being blind duplicates Blk35-GW-11. Samples contained silt and sediment but no odor was detected. HCL used?

Borehole #6, (Blk35-09):

08:10 – On site at Washington Square.

08:40 – One soil sample was obtained, Blk35-SO-09, consisting of a clay and sand mix. No odor was detected.

09:15 – Henry informed me that no groundwater was encountered in this borehole. He suggested that we wait for the groundwater to recharge.

09:35 – Only one groundwater sample, Blk35-GW-09, could be collected at this site. We agreed that we would come back to this borehole at the end of the day after the groundwater recharged to collect the second groundwater sample. No HCl was used due to excessive bubbling.

Borehole #7, (Blk35-10):

10:00 – On site at the parking lot behind Decades Clothing Store.

10:30 – Collected one soil sample, Blk35-SO-10, that was gray in color. DTW was 18.5 feet bgs.

10:55 – Two groundwater samples were collected, Blk35-GW-10. These samples were silty but no odor was detected. No HCl was used due to excessive bubbling.

Borehole #8, (Blk35-03):

11:30 – On site at Eighth South Well located at 800 South 500 East in Salt Lake City.

12:20 – One soil sample, Blk35-SO-03, was collected that consisted mostly of clay. DTW was 8.2 feet bgs.

12:35 – Two groundwater samples, Blk35-GW-03, were collected. These samples were silty in appearance. No HCl was used due to excessive bubbling.

Borehole #6, (Blk35-09):

13:00 – Returned to Washington Square for second groundwater sample, Blk35-GW-09. Groundwater was silty in appearance. DTW was 17.5 feet bgs. No HCl was used due to excessive bubbling.

5.0 SAMPLE PREPARATION

At the DERR offices, the samples were prepared and shipped per CLP instructions under Case Number 38726 on July 16, 2009. Organic samples were shipped via FedEx to KAP Technologies, Inc. in The Woodlands, Texas.

6.0 PHOTOGRAPHS

See attached.

7.0 CONCLUSIONS

With the exception of the last-minute restriction of access to the Cannella's Restaurant property, all of the sampling objectives for the sampling event were met.

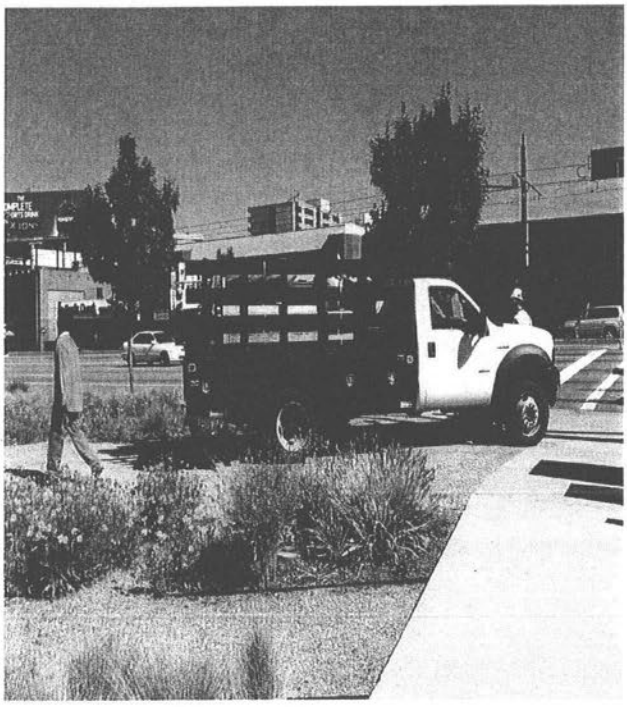


Photo #1: Salt Lake City Library, Blk35-08

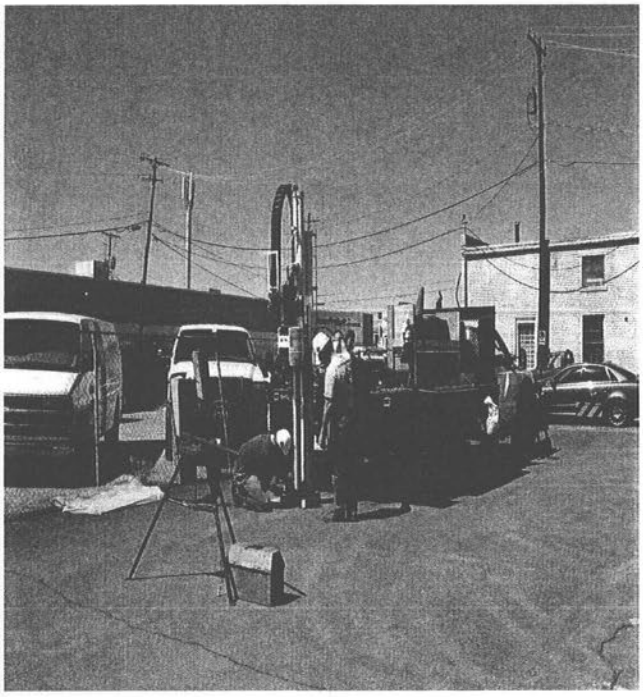


Photo #2: Salt Lake Public Health Center, Blk35-07

Photo #3: Block 35 (northeast corner), Blk35-04

Photo #4: Block 35 monitoring well, Blk35-GW-01

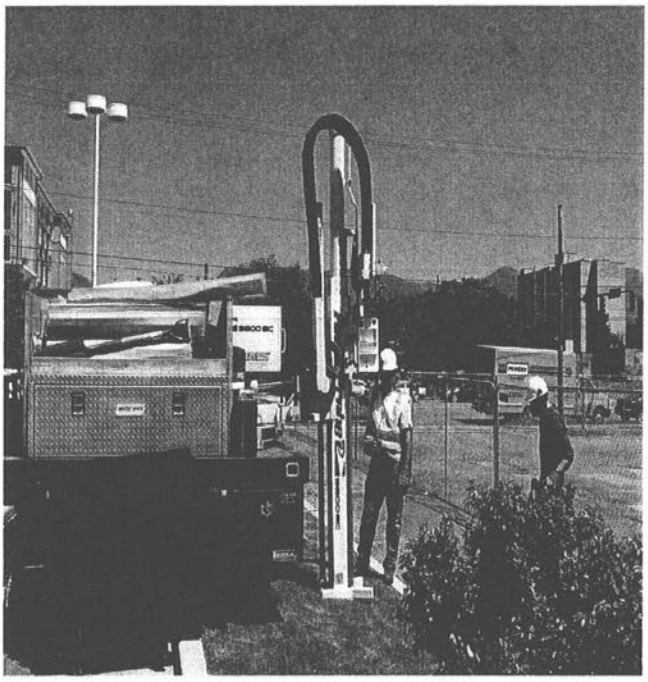


Photo #5: Block 35 (southeast corner), Blk35-05

Photo #6: Utah State Board of Education Building monitoring well, Blk35-GW-02

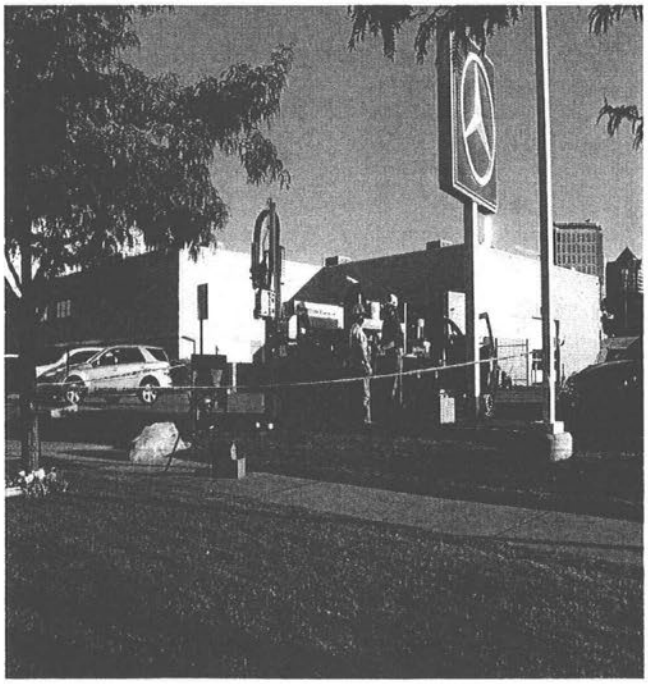


Photo #7: Block 35 (southwest corner), Blk35-06

Photo #8: Washington Square, Blk35-09

Photo #9: Washington Square, Blk35-09

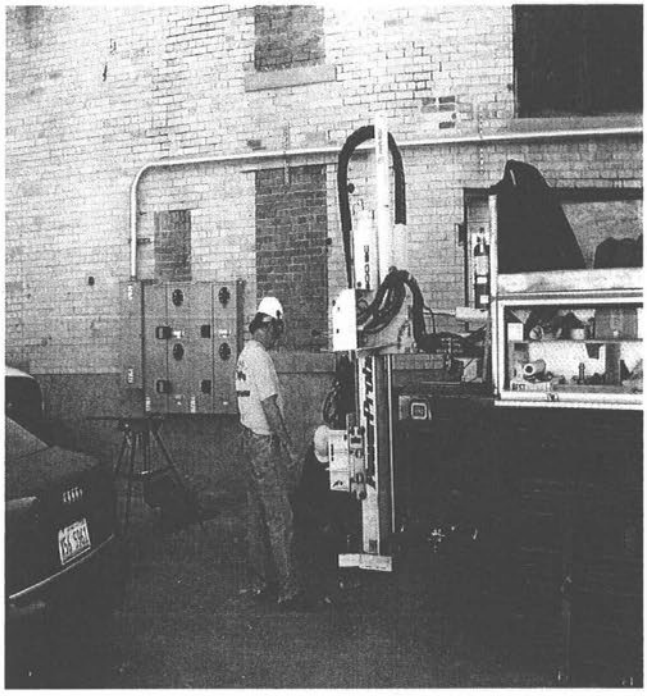


Photo #10: Decades clothing store parking lot, Blk35-10

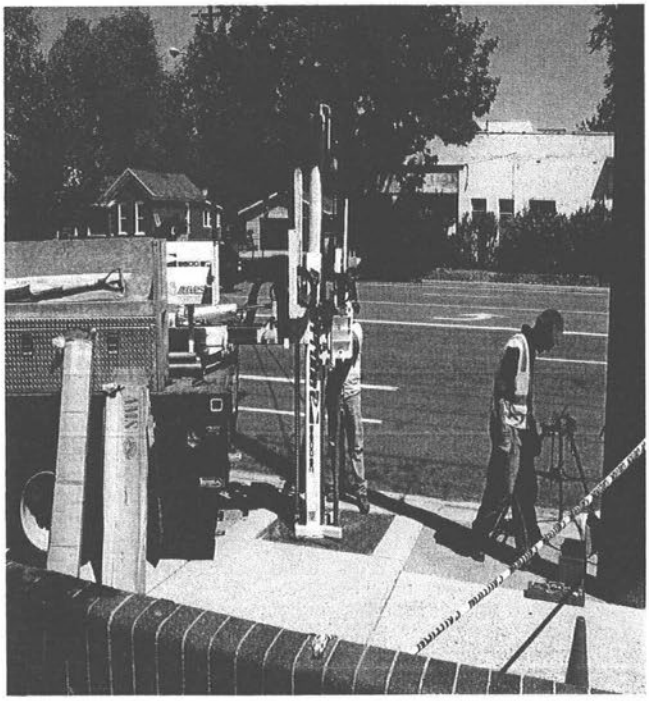


Photo #11: Eighth South Well, Blk35-03

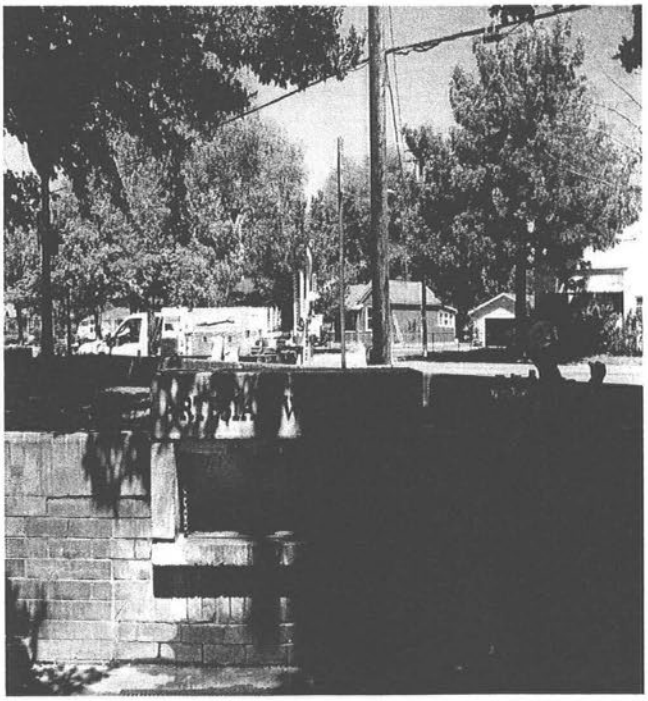


Photo #12: Eighth South Well, Blk35-03

Appendix B

Grant of Access to Property Forms

GRANT OF ACCESS TO PROPERTY

(b) (6) is the owner ("Owner") of record, title holder or authorized agent for the record owner of certain real property located at 627 South State Street, Salt Lake City, Utah ("Property").

The Owner hereby grants to the officers, employees, authorized representatives, and consultants of the Utah Division of Environmental Response and Remediation ("DERR") access, including ingress and egress, to the Property for the following purposes:

- the drilling of one borehole with a probe rig;
- the collection of soil and ground water from this borehole; and
- the taking of photographs of sample locations.

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ENVIRONMENTAL RESPONSE & REMEDIATION
ENTERED

The expected timeframe for this operation would reasonably be 2 to 3 hours, and will occur either in the alleyway south of the building located at 627 South State Street or in the parking lot behind this building. After sampling, the borehole would be appropriately backfilled to its original condition. Prior to boring, the site would be surveyed for the presence of any utility and/or fuel lines to avoid hitting any underground lines during the investigation. All attempts will be made to avoid impacting business traffic and parking during the boring operation.

I understand that these actions by UDEQ are undertaken pursuant to its responsibilities under the Utah Environmental Quality Code, Sections 19-1-101 *et seq.* and 19-6-301 et seq., and the U.S. Comprehensive Environmental Response, Compensation, and Liability Act (Superfund), 42 U.S.C. s. 9601, *et seq.*

By granting access to the DERR, I make no admission of liability or responsibility for any contamination, which may be found on the Property. This written permission is provided voluntarily with knowledge of my right to refuse access. I further acknowledge that no promises, representations or claims of any kind, either written or oral have been made by the DERR to induce my consent.

(b) (6)
(Owner's Signature)

PARTNER OF WONDERFUL L.L.C.
(Title)

(b) (6)
(Printed Name)

04.09.2009
(Date)

Please sign and return via mail or fax to:
Kim Viehweg
Utah Department of Environmental Quality

Tetephone# (b) (6)

P.O. Box 144840, SLC, UT 84114-4840
Phone 801-536-4161 / fax: 801-536-4242
Email: kviehweg@utah.gov

GRANT OF ACCESS TO PROPERTY

(b) (6) is the owner ("Owner") of record, title holder or authorized agent for the record owner of certain real property located at 525 South State Street, 531 South State Street, and 150 E 500 S, Salt Lake City, Utah [Parcels no. **16063520190000, 1606376022,** and **1606352006**, also known as Block 35] ("Property").

The Owner hereby grants to the officers, employees, authorized representatives, and consultants of the Utah Division of Environmental Response and Remediation ("DERR") access, including ingress and egress, to the Property for the following purposes:

- the drilling of three boreholes with a probe rig;
- the collection of soil and groundwater from these boreholes;
- the collection of a groundwater sample from a monitoring well located in the northeast section of Block 35 west of the Ken Garff Hyundai building; and
- the taking of photographs of sample locations.

The expected timeframe for this operation would reasonably be 2 to 3 hours per borehole, and would occur in the northwest, southwest, and southeast sections of Block 35 in the parking lot. After sampling, the boreholes will be appropriately backfilled to their original condition. Prior to boring, the site will be surveyed for the presence of any utility and/or fuel lines to avoid hitting any underground lines during the investigation. All attempts will be made to avoid impacting business traffic and parking during the boring operation.

I understand that these actions by UDEQ are undertaken pursuant to its responsibilities under the Utah Environmental Quality Code, Sections 19-1-101 *et seq.* and 19-6-301 *et seq.*, and the U.S. Comprehensive Environmental Response, Compensation, and Liability Act (Superfund), 42 U.S.C. s. 9601, *et seq.*

By granting access to the DERR, I make no admission of liability or responsibility for any contamination, which may be found on the Property. This written permission is provided voluntarily with knowledge of my right to refuse access. I further acknowledge that no promises, representations or claims of any kind, either written or oral have been made by the DERR to induce my consent.

(b) (6)
(Owner's Signature)

Facilities Administrator
(Title)

(b) (6)
(Printed Name)

5/13/2009
(Date)

Please sign and return via mail or fax to:
Kim Viehweg
Utah Department of Environmental Quality
P.O. Box 144840, SLC, UT 84114-4840
Phone 801-536-4161 / fax: 801-536-4242
Email: kviehweg@utah.gov

Telephone# (b) (6)

AGREEMENT TO GRANT ACCESS TO PROPERTY

Salt Lake City Corporation is the owner ("Owner") of record, title holder or authorized agent for the record owner of certain real property located at 240 East 400 South, Salt Lake City, Utah [Parcel no. **16063300190000**, also known as the Sah Lake City Public Library] ("Property"), and this agreement is dated as of the date the City Recorder attests the applicable City signature (which date shall be the recordation date).

Owner hereby grants to the officers, employees, authorized representatives and consultants of the Utah Division of Environmental Response and Remediation (collectively, "DERR") access, including ingress and egress, to the Property for the following purposes:

RECORDED

APR 24 2009

CITY RECORDER

- drilling of one borehole with a probe rig;
- collection of soil and groundwater from this borehole; and
- taking of photographs of the borehole.

The expected timeframe for this operation will reasonably be 2 to **3** hours, and will occur either on a grassy strip of lawn or in a corner of the parking lot of the Property, which areas are more particularly identified on the attached Exhibit A. After sampling, the borehole will be appropriately backfilled to its original condition by DERR. Prior to boring, the site will be surveyed by DERR for the presence of any utility and/or fuel lines, including sprinkler system utility lines, to avoid hitting any underground lines during the investigation. DERR will make all attempts to avoid impacting business traffic and parking during the boring operation.

Owner understands that these actions by DERR are being undertaken pursuant to the Environmental Quality Code, Utah Code Ann. §§ 19-1-101 to -307, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601 *et seq.*

By granting access to DERR, Owner makes no admission of liability or responsibility for any contamination that may be found on the Property. This written permission is provided voluntarily with knowledge of the right to refuse access. Owner further acknowledges that no promises, representations or claims of any kind, either written or oral, have been made by the DERR to induce consent to this agreement.

Upon completion of assessment of the boring by DERR, DERR will provide Owner with a copy of the test results. Copy shall be sent to: Renee Zollinger, Environmental Programs Manager, Salt Lake City Corporation, Office of Sustainability and Environment, P.O. Box 145467, Salt Lake City, Utah 84114-5467.

S. Au
(Owner's Signature)

Mgmt. Services Dir.
(Title, Salt Lake City Corporation)

Telephone: (801) 535-7215

AGREEMENT TO GRANT ACCESS TO PROPERTY

Salt Lake City Corporation is the owner ("Owner") of record, title holder or authorized agent for the record owner of certain real property located at 800 South 500 East, Salt Lake City, Utah [Parcel no. 16072530250000, also known as the Eighth South Well] ("Property"), and this agreement is dated as of the date the City Recorder attests the applicable City signature (which date shall be the recordation date).

Owner hereby grants to the officers, employees, authorized representatives and consultants of the Utah Division of Environmental Response and Remediation (collectively, "DERR") access, including ingress and egress, to the Property for the following purposes:

- drilling of one borehole with a probe rig;
- collection of soil and groundwater from this borehole; and
- taking of photographs of the borehole.

RECORDED

APR 24 2009

CITY RECORDER

The expected timeframe for this operation will reasonably be 2 to 3 hours, and will occur either on a grassy strip of lawn or in a corner of the parking lot of the Property, which areas are more particularly identified on the attached Exhibit A. After sampling, the borehole will be appropriately backfilled to its original condition by DERR. Prior to boring, the site will be surveyed by DERR for the presence of any utility and/or fuel lines, including sprinkler system utility lines, to avoid hitting any underground lines during the investigation. DERR will make all attempts to avoid impacting business traffic and parking during the boring operation.

Owner understands that these actions by DERR are being undertaken pursuant to the Environmental Quality Code, Utah Code Ann. §§ 19-1-101 to -307, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601 *et seq.*

By granting access to DERR, Owner makes no admission of liability or responsibility for any contamination that may be found on the Property. This written permission is provided voluntarily with knowledge of the right to refuse access. Owner further acknowledges that no promises, representations or claims of any kind, either written or oral, have been made by the DERR to induce consent to this agreement.

Upon completion of assessment of the boring by DERR, DERR will provide Owner with a copy of the test results. Copy shall be sent to: Renee Zollinger, Environmental Programs Manager, Salt Lake City Corporation, Office of Sustainability and Environment, P.O. Box 145467, Salt Lake City, Utah 84114-5467.

(Owner's Signature)

Mgmt. Services Dir.
(Title, Salt Lake City Corporation)

Telephone: (801) 535-7215

AGREEMENT TO GRANT ACCESS TO PROPERTY

Salt Lake City Corporation is the owner ("Owner") of record, title holder or authorized agent for the record owner of certain real property located at 451 South State Street, Salt Lake City, Utah [Parcel no. **16063070010000**, also known as the City and County Building (or Washington Square)] ("Property"), and this agreement is dated as of the date the City Recorder attests the applicable City signature (which date shall be the recordation date).

Owner hereby grants to the officers, employees, authorized representatives and consultants of the Utah Division of Environmental Response and Remediation (collectively, "DERR") access, including ingress and egress, to the Property for the following purposes:

RECORDED

APR 24 2009

CITY RECORDER

- drilling of one borehole with a probe rig;
- collection of soil and groundwater from this borehole; and
- taking of photographs of the borehole.

The expected timeframe for this operation will reasonably be 2 to 3 hours, and will occur either on a grassy strip of lawn or in a corner of the parking lot of the Property, which areas are more particularly identified on the attached Exhibit A. After sampling, the borehole will be appropriately backfilled to its original condition by DERR. Prior to boring, the site will be surveyed by DERR for the presence of any utility and/or fuel lines, including sprinkler system utility lines, to avoid hitting any underground lines during the investigation. DERR will make all attempts to avoid impacting business traffic and parking during the boring operation.

Owner understands that these actions by DERR are being undertaken pursuant to the Environmental Quality Code, Utah Code Ann. §§ 19-1-101 to -307, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601 *et seq.*

By granting access to DERR, Owner makes no admission of liability or responsibility for any contamination that may be found on the Property. This written permission is provided voluntarily with knowledge of the right to refuse access. Owner further acknowledges that no promises, representations or claims of any kind, either written or oral, have been made by the DERR to induce consent to this agreement.

Upon completion of assessment of the boring by DERR, DERR will provide Owner with a copy of the test results. Copy shall be sent to: Renee Zollinger, Environmental Programs Manager, Salt Lake City Corporation, Office of Sustainability and Environment, P.O. Box 145467, Salt Lake City, Utah 84114-5467.

S. Gen

(Owner's Signature)

Mgmt. Services Dir.

(Title, Salt Lake City Corporation)

Telephone: (801) 535-7215

AGREEMENT TO GRANT ACCESS TO PROPERTY

Salt Lake City Corporation is the owner ("Owner") of record, title holder or authorized agent for the record owner of certain real property located at 150 East 600 South, Salt Lake City, Utah [Parcel no. 16063820010000, also known as the Public Health Center] ("Property"), and this agreement is dated as of the date the City Recorder attests the applicable City signature (which date shall be the recordation date).

Owner hereby grants to the officers, employees, authorized representatives and consultants of the Utah Division of Environmental Response and Remediation (collectively, "DERR") access, including ingress and egress, to the Property for the following purposes:

RECORDED

APR 24 2000

CITY RECORDER

- drilling of one borehole with a probe rig;
- collection of soil and groundwater from this borehole; and
- taking of photographs of the borehole.

The expected timeframe for this operation will reasonably be 2 to 3 hours, and will occur either on a grassy strip of lawn or in a corner of the parking lot of the Property. After sampling, the borehole will be appropriately backfilled to its original condition by DERR. Prior to boring, the site will be surveyed by DERR for the presence of any utility and/or fuel lines, including sprinkler system utility lines, to avoid hitting any underground lines during the investigation. DERR will make all attempts to avoid impacting business traffic and parking during the boring operation.

Owner understands that these actions by DERR are being undertaken pursuant to the Environmental Quality Code, Utah Code Ann. §§ 19-1-101 to -307, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601 *et seq.*

By granting access to DERR, Owner makes no admission of liability or responsibility for any contamination that may be found on the Property. This written permission is provided voluntarily with knowledge of the right to refuse access. Owner further acknowledges that no promises, representations or claims of any kind, either written or oral, have been made by the DERR to induce consent to this agreement.

Upon completion of assessment of the boring by DERR, DERR will provide Owner with a copy of the test results. Copy shall be sent to: Renee Zollinger, Environmental Programs Manager, Salt Lake City Corporation, Office of Sustainability and Environment, P.O. Box 145467, Salt Lake City, Utah 84114-5467.

S. Au
(Owner's ~~Signature~~)

Mgmt. Services Dir.
(Title, Salt Lake City Corporation)

Telephone: (801) 535-7215

GRANT OF ACCESS TO PROPERTY

Dewey's Inc is the owner ("Owner") of record, title holder or authorized agent for the record owner of certain real property located at 202 E. 500 S ("Property").

The Owner hereby grants to the officers, employees, authorized representatives, and consultants of the Utah Division of Environmental Response and Remediation ("DERR") access, including ingress and egress, to the Property for the following purposes:

- the drilling of one borehole with a probe rig;
- the collection of soil and ground water from this borehole; and
- the taking of photographs of sample locations.

The expected timeframe for this operation would reasonably be 2 to 3 hours, and would occur either on a grassy strip of lawn or in a corner of the parking lot. After sampling, the borehole would be appropriately backfilled to its original condition. Prior to boring, the site would be surveyed for the presence of any utility and/or fuel lines to avoid hitting any underground lines during the investigation. All attempts will be made to avoid impacting business traffic and parking during the boring operation.

I understand that these actions by UDEQ are undertaken pursuant to its responsibilities under the Utah Environmental Quality Code, Sections 19-1-101 *et seq.* and 19-6-301 *et seq.*, and the U.S. Comprehensive Environmental Response, Compensation, and Liability Act (Superfund), 42 U.S.C. s. 9601, *et seq.*

By granting access to the DERR, I make no admission of liability or responsibility for any contamination, which may be found on the Property. This written permission is provided voluntarily with knowledge of my right to refuse access. I further acknowledge that no promises, representations or claims of any kind, either written or oral have been made by the DERR to induce my consent.

(b) (6)
(Owner's Signature)

Pres
(Title)

(b) (6)
(Printed Name)

2/4/09
(Date)

Please sign and return via mail or fax to:
Kim Viehweg
Utah Department of Environmental Quality
P.O. Box 144840, SLC, UT 84114-4840
Phone 801-536-4161 / fax: 801-536-4242
Email: kviehweg@utah.gov

Telephone# (b) (6)

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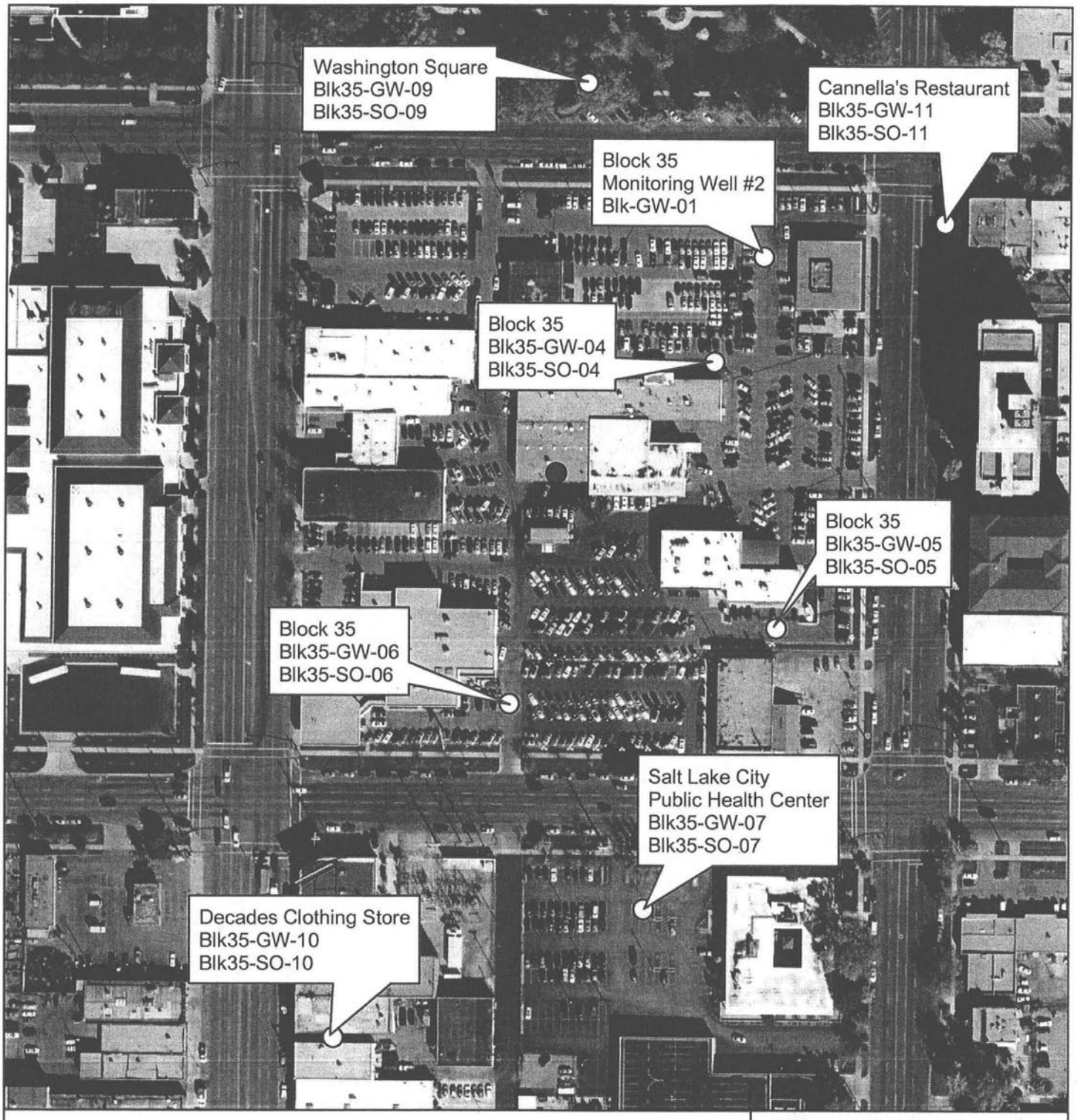
ENTERED

Appendix C

Site Sampling Locations from the Block 35 Methylene Chloride Plume Site Investigation Work Plan



0 125 250 500 750 Feet

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Legend

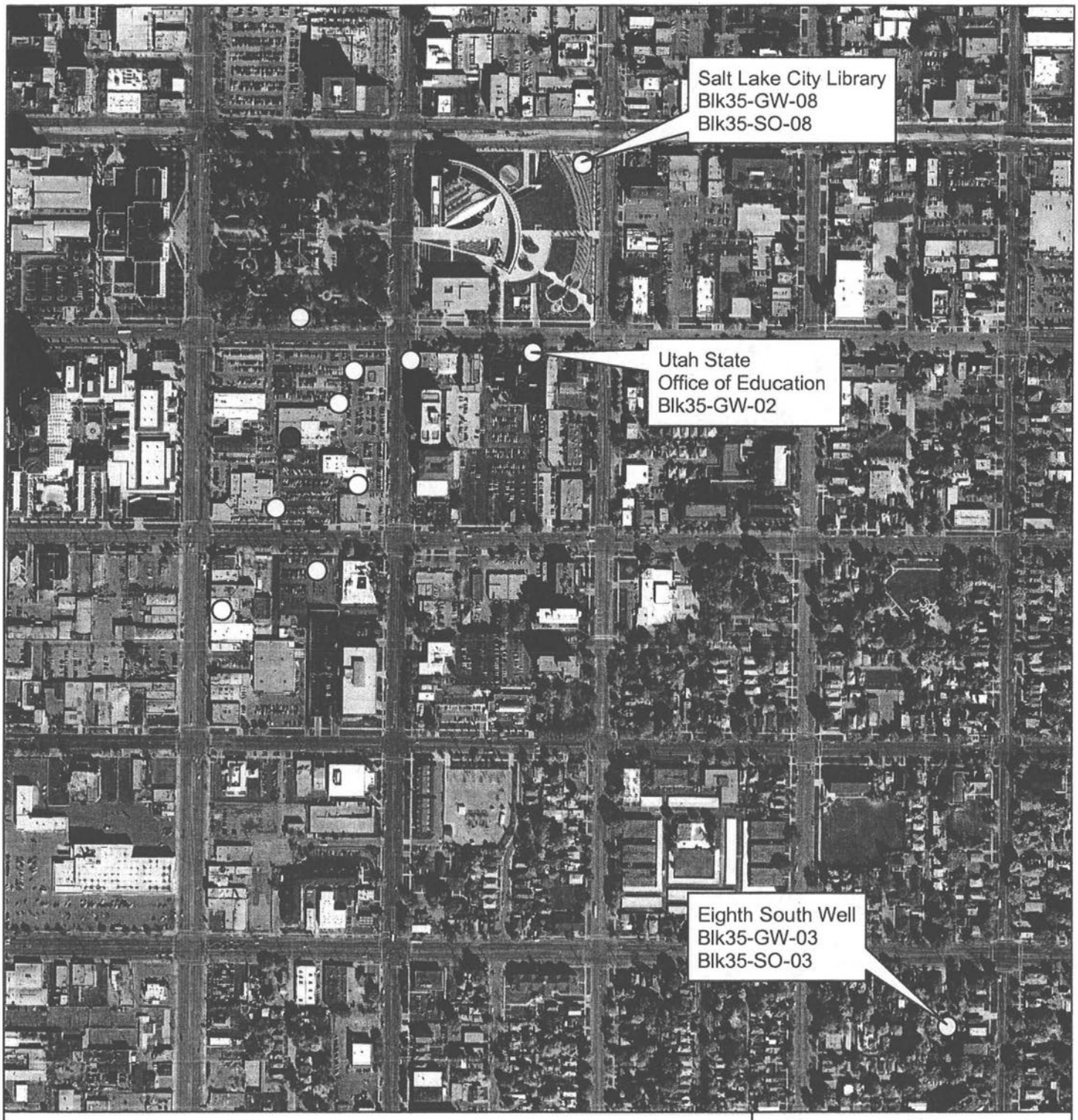
- Block 35 Methylene Chloride Plume site
- Proposed Groundwater and/or Soil Sample Locations

N
W E
S

Aerial photograph obtained from the State of Utah GIS database, 2006

Figure 3
Site Sampling Locations
(Map 1)
Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 1/15/09



0 0.125 0.25 0.5 Miles

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Legend

- Block 35 Methylene Chloride Plume site
- Proposed Groundwater and/or Soil Sample Locations

N
W E
S

Figure 4
Site Sampling Locations
(Map 2)
Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 1/15/09

Aerial photograph obtained from the State of Utah GIS database, 2006

Appendix D

February 17, 2010 Analytical Laboratory Resuhs for the 800 South 500 East Artesian Well in Salt Lake City

Utah Department of Health, Division of Epidemiology and Laboratory Services
4431 South 2700 West, Taylorsville, UT 84119, Tel: (801) 965-2400

Method: 524.2 GC/MS

Cost Code:	36IB			Lab #:	201000594
Customer ID #:	W18026	Date / Time Collected:	02/17/2010 10:00	Matrix:	WATER
Collected By:	ES TR	Sample Site:	ARTESIAN FOUNTAIN 8TH S 5TH E		
Analyst:	df	Date Received:	02/22/2010	Date Analyzed:	2/22/2010
Analyzing Batch #:	524_2100222	QA Pass:	Yes		

Regulated	MRL (ug/L)	Result (ug/L)	*Regulated*	MRL (ug/L)	Result (ug/L)
1,1-Dichloroethane	0.5	U	Bromomethane	0.5	U
1,1-Dichloroethene	0.5	U	Bromoform	0.5	U
1,1-Dichloropropene	0.5	U	Chlorobenzene	0.5	1.4
1,1,1-Trichlorocthane	0.5	U	Chlorodibromomethane	0.5	U
1,1,2-Trichloroethane	0.5	U	Chloroethane	0.5	U
1,1,1,2-Tetrachloroethanc	0.5	U	Chloroform	0.5	1.2
1,1,2,2-Tetrachloroethane	0.5	U	Chloromethane	0.5	U
1,2-Dibromo-3-chloropropane	0.5	U	Carbon Tetrachloride	0.5	U
1,2-Dichlorobenzene	0.5	U	cis-1,2-Dichloroethene	0.5	U
1,2-Dichloroethane	0.5	U	cis-1,3-Dichloropropene	0.5	U
1,2-Dichloropropane	0.5	U	Dibromomethane	0.5	U
2-Chlorotoluene	0.5	U	Ethylbenzene	0.5	U
1,2,3-Trichloropropane	0.5	U	Ethylene Dibromide	0.5	U
1,2,4-Trichlorobenzene	0.5	U	Methylene Chloride	0.5	U
1,3-Dichlorobenzene	0.5	U	Styrene	0.5	U
1,3-Dichloropropane	0.5	U	Tetrachloroethene (PCE)	0.5	U
1,4-Dichlorobenzene	0.5	U	Toluene	0.5	U
4-Chlorotoluene	0.5	U	Total Xylene	0.5	U
2,2-Dichloropropane	0.5	U	trans-1,2-Dichloroethene	0.5	U
Benzene	0.5	U	trans-1,3-Dichloropropene	0.5	U
Bromobenzene	0.5	U	Trichloroethene (TCE)	0.5	U
Bromodichloromethane	0.5	U	Vinyl Chloride	0.5	U
Unregulated					
			Isopropylbenzene	0.5	U
1,2,3-Trichlorobenzene	0.5	U	Methyl T-Butyl Ether (MTBE)	0.5	U
1,2,4-Trimethylbenzene	0.5	U	Napthalene	0.5	U
1,3,5-Trimethylbenzene	0.5	U	n-Butylbenzene	0.5	U
1,4-Isopropyltoluene	0.5	U	n-Propylbenzene	0.5	U
Bromochloromethane	0.5	U	Sec-butylbenzene	0.5	U
Dichlorodifluoromethane	0.5	U	Tert-butylbenzene	0.5	U
Hexachlorobutadiene	0.5	U	Trichlorofluoromethane	0.5	U

Comments: sample receipt temperature out of range

U - Analyzed for but not detected.

Analysis Certified By: Alia Rauf Date: 03/09/10

SALT LAKE CITY PUBLIC UTI
FLORENCE REYNOLDS
1530 S WEST TEMPLE
SALT LAKE CITY UT 84115-5292

Utah Department of Health, Division of Epidemiology and Laboratory Services
46 North Medical Drive, Salt Lake City, UT 84113, Tel: (801) 584-8400

Method: 524.2 GC/MS

Cost Code:	361B			Lab #:	200900880
Customer ID #:	W18026	Date / Time Collected:	02/24/2009 09:40	Matrix:	WATER
Collected By:	TR EF	Sample Site:	ARTESIAN FOUNTAIN STH S 5TH E		
Analyst:	df	Date Received:	02/24/2009	Date Analyzed:	3/5/2009
Analyzing Batch #:	524_2090305	QA Pass:	Yes		

Regulated	MRL (ug/L)	Result (ug/L)	*Regulated*	MRL (ug/L)	Result (ug/L)
1,1-Dichloroethane	0.5	U	Bromomethane	0.5	U
1,1-Dichloroethene	0.5	U	Bromoform	0.5	U
1,1-Dichloropropene	0.5	U	Chlorobenzene	0.5	U
1,1,1-Trichloroethane	0.5	U	Chlorodibromomethane	0.5	U
1,1,2-Trichloroethane	0.5	U	Chloroethane	0.5	U
1,1,1,2-Tetrachloroethane	0.5	U	Chloroform	0.5	1.2
1,1,2,2-Tetrachloroethaae	0.5	U	Chloromethane	0.5	U
1,2-Dibromo-3-chloropropane	0.5	U	Carbon Tetrachloride	0.5	U
1,2-Dichlorobenzene	0.5	U	cis-1,2-Dichloroethene	0.5	U
1,2-Dichlorocthane	0.5	U	cis-1,3-Dichloropropene	0.5	U
1,2-Dichloropropane	0.5	U	Dibromomethane	0.5	U
2-Chlorotoluene	0.5	U	Ethylbenzene	0.5	U
1,2,3-Trichloropropane	0.5	U	Ethylene Dibromide	0.5	U
1,2,4-Trichlorobenzene	0.5	U	Methylene Chloride	0.5	U
1,3-Dichlorobenzene	0.5	U	Styrene	0.5	U
1,3-Dichloropropane	0.5	U	Tetrachloroethene (PCE)	0.5	U
1,4-Dichlorobenzene	0.5	U	Toluene	0.5	U
4-Chlorotolucne	0.5	U	Total Xylene	0.5	U
2,2-Dichloropropaae	0.5	U	trans-*l*,2-Dichloroethene	0.5	U
Benzene	0.5	U	trans-1,3-Dichloropropene	0.5	U
Bromobenzene	0.5	U	Trichloroethene (TCE)	0.5	U
Bromodichloromethane	0.5	U	Vinyl Chloride	0.5	U
Unregulated					
1,2,3-Trichlorobenzene	0.5	U	Isopropylbenzene	0.5	U
1,2,4-Trlmethylbenzene	0.5	U	Methyl T-Butyl Ether (MTBE)	0.5	U
1,3,5-Trlmethylbenzene	0.5	U	Napthalene	0.5	U
1,4-Isopropyltoluene	0.5	U	n-Butylbenzene	0.5	U
Bromochloromethane	0.5	U	n-Propylbenzene	0.5	U
Dichlorodifluoromethane	0.5	U	Sec-butylbenzene	0.5	U
Hexachlorobutadiene	0.5	U	Tert-butylbenzene	0.5	U
			Trichlorofluoromethane	0.5	U

Conments: sample receipt temperature out of range

U - Analyzed for but not detected.

Analysis Certified By: Alia Rawls Date: 03/19/09

SALT LAKE CITY PUBLIC UTI
FLORENCE REYNOLDS
1530 S WEST TEMPLE
SALT LAKE CITY UT 84115-5292

Cost Code: 36IB | METHOD 531.1 | Lab # 201000594

Send Report To:
SALT LAKE CITY PUBLIC UTILITIES
FLORENCE REYNOLDS
1530 S WEST TEMPLE
SALT LAKE CITY UT 84115-5292

Utah Division of Laboratory Services
46 North Medical Drive
Salt Lake City, UT 84113

Date/Time Collected: 02/17/201010:00 Sample Matrix: Water
Collected By: ES TR Sampling Site: 18026
Description of Sampling Point: ARTESIAN FOUNTAIN 8TH S 5TH E

Analyst: DK Date Received: 02/22/2010 Date Analyzed: 3/17/10

Compound	MRL/Results ug/l	
Aldicarb sulfone	1.0	U
Aldicarb sulfoxide	1.0	U
Aldicarb	1.0	U
Carbofuran	2.0	U
Oxamyl	2.0	U
Carbaryl	2.0	U
3-Hydroxycarbofuran	2.0	U
Methomyl	1.0	U

U- Analyzed for but not detected.

Analysis Certified By: Alia Ramf Date: 03/18/10

Cost Code: 361B

METHOD 515.1/8151
Chlorinated Acids

Lab# 201000594

Send Report To:
SALT LAKE CITY PUBLIC UTILITIES
FLORENCE REYNOLDS
1530 S WEST TEMPLE
SALT LAKE CITY UT 84115-5292

Utah Division of Laboratory Services
46 North Medical Drive
Salt Lake City, UT 84113

Date/Time Collected: 02/17/201010:00
Collected By: ES TR
Sample Matrix: Water
Sampling Site: 18026
Description of Sampling Point: ARTESIAN FOUNTAIN 8TH S 5TH E

Analyst: DK
Date Received: 02/22/2010
Date Analyzed: 3/8/10

Regulated	MRL ug/L	Results ug/L
2,4,5-TP	0.44	U
2,4-D	0.22	U
Dalapon	2.2	U
Dinoseb	0.44	U
Pentachlorophenol	0.08	U
Picloram	0.22	U
Unregulated		
Dicamba	0.4	U
DCPA	1.0	

U- Analyzed for but not detected

Analysis Certified By: [signature]
Date: 3/10/10

Utah Department of Health: Division of Epidemiology and Laboratory Services

4431 South 2700 West, Taylorsville, UT 84119, Tel: (801) 965-2400

Method: 525.2 GC/MS

Customer ID #:	W18026	Date Collected:	02/17/2010	Time Collected:	10:00
Collected By:	ES TR	Matrix:	WATER	Cost Code:	361B
Sample Site:	ARTESIAN FOUNTAIN 8TH S 5TH E				

Analyst:	N.J.O.	Date Received:	02/22/2010	Date Analyzed:	3/3/2010
Lab Sample ID #:	201000594	Analyzing Batch #:	525_2100303	QA Pass:	Yes

Regulated	MRL (ug/L)	Result (ug/L)	*Regulated*	MRL (ug/L)	Result (ug/L)
Alachlor	0.2	U	***Chlordane As***		
Atrazine	0.1	U	Alpha-Chlordane	0.2	U
Benzo (a) pyrene	0.05	U	Ganuna-Chlordane	0.2	U
Bis (2-ethylhexyl) adipate	0.6	U	Trans-Nonachlor	0.2	U
Bis (2-ethylhexyl) phthalate	0.6	U			
Endrin	0.01	U	***PCB As***		
Heptachlor	0.04	U	Chlorobiphenyl	0.1	U
Heptachlor Epoxide	0.02	U	Dichlorobiphenyl	0.1	U
Hexachlorobenzene	0.12	U	Heptachlorobiphenyl	0.1	U
Hexachlorocyclopentadiene	0.1	U	Hexachlorobiphenyl	0.1	U
Lindane	0.02	U	Octachlorobiphenyl	0.1	U
Methoxychlor	0.1	U	Pentachlorobiphenyl	0.1	U
Pentachlorophenol	0.04	U	Tetreachlorobiphenyl	0.1	U
Simazine	0.07	U	Trichlorobiphenyl	0.1	U
Toxaphene	1	U			
			Unregulated		
Aldrin	0.21	U	Metolachlor	0.19	U
Bromacil	0.29	U	Metribuzin	0.17	U
Butachlor	0.2	U	Prometon	0.27	U
Cyanazine	0.18	U	Propachlor	0.22	U
Dieldrin	0.24	U	Trifuralin	0.22	U

Comments:

U - Analyzed for but not detected.
B - Found in the blank.

Analysis Certified By: J. Oman Date: 29 Mar 10

SALT LAKE CITY PUBLIC UTI
FLORENCE REYNOLDS
1530 S WEST TEMPLE
SALT LAKE CITY UT 84115-5292

Appendix E

Chain of Custody Forms and Sample Shipping Information

EPA USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: R
DAS No:

Region: 8	Date Shipped:	**Chain of Custody Record**	Sampler Signature:
Project Code:	Carrier Name: FedEx	Relinquished By (Date / Time)	Received By (Date / Time)
Account Code:	Airbill:	1	
CERCLIS ID: UTN000802657	Shipped to: KAP Technologies Inc. 9391 Grogans Mill Rd., Suite-A2 The Woodlands TX 77380 (281) 367-0065	2	
Spill ID:		3	
Site Name/State: Block 35/UT		4	
Project Leader: Kim Viehweg			
Action:			
Sampling Co:			

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
H2FT0	Monitor Well/ Kim Viehweg	/G	VOA (21)	8-311851 (HCL), 8-311851a (HCL) (2)	Block 35 monitoring well	S: 7/14/2009 14:50		--
H2FT1	Monitor Well/ Kim Viehweg	/G	VGA (21)	8-311852 (HCL), 8-311852a (HCL) (2)	Utah Education Bldg. monitoring well	S: 7/14/2009 16:30		--
H2FT2	Ground Water/ Kim Viehweg	/G	VGA (21)	8-311853 (Ice Only), 8-311853a (Ice Only) (2)	Eighth South Well	S: 7/15/2009 12:35		--
H2FT3	Ground Water/ Kim Viehweg	/G	VGA (21)	8-311854 (Ice Only), 8-311854a (Ice Only), 8-311855 (Ice Only), 8-311855a (Ice Only), 8-311856 (Ice Only), 8-311856a (Ice Only) (6)	Block 35-northeast corner	S: 7/14/2009 14:15		Lab QC
H2FT4	Ground Water/ Kim Viehweg	/G	VOA (21)	8-311857 (Ice Only), 8-311857a (Ice Only) (2)	Block 35-southeast corner	S: 7/14/2009 15:50		--
H2FT5	Ground Water/ Kim Viehweg	/G	VOA (21)	8-311858 (Ice Only), 8-311858a (Ice Only) (2)	Block 35-southwest corner	S: 7/15/2009 7:50		--
H2FT6	Ground Water/ Kim Viehweg	/G	VOA (21)	8-311859 (Ice Only), 8-311859a (Ice Only) (2)	Salt Lake Public Health Center	S: 7/14/2009 12:05		--
H2FT7	Ground Water/ Kim Viehweg	/G	VOA (21)	8-311860 (Ice Only), 8-311860a (Ice Only) (2)	Salt Lake City Library	S: 7/14/2009 9:55		--
H2FT8	Ground Water/ Kim Viehweg	/G	VOA (21)	8-311861 (Ice Only), 8-311861a (Ice Only) (2)	Washington Square	S: 7/15/2009 9:35		--

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: H2FT3, H2FW2	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____
VOA = CLP TGL Volatiles			

TR Number: 8-043013577-071309-0001

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSG, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

EPA USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: R
DAS No:

Region:	8
Project Code:	
Account Code:	
CERCLIS ID:	UTN000802657
Spill ID:	
Site Name/State:	Block 35/UT
Project Leader:	Kim Viehweg
Action:	
Sampling Co:	

Date Shipped:
Carrier Name: FedEx
Airbill:
Shipped to: KAP Technologies Inc.
9391 Grogans Mill Rd.,
Suite-A2
The Woodlands TX 77380
(281) 367-0065

Chain of Custody Record

Relinquished By	(Date / Time)	Received By	(Date / Time)
1			
2			
3			
4			

Sampler Signature:

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	OC Type
H2FT9	Ground Water/ Kim Viehweg	/G	VOA (21)	8-311862 (Ice Only), 8-311862a (Ice Only) (2)	Decades	S: 7/15/2009 10:55		--
H2FW0	Field QC/ Kim Viehweg	/G	VOA (21)	8-311863 (Ice Only), 8-311863a (Ice Only) (2)	Block 35-southwest corner	S: 7/15/2009 7:50		Field Duplicate
H2FW1	Subsurface Soil (>12")/ Kim Viehweg	/G	VOA (21)	8-311864 (Ice Only) (1)	Eighth South Well	S: 7/15/2009 12:20		--
H2FW2	Subsurface Soil (>12")/ Kim Viehweg	/G	VOA (21)	8-311865 (Ice Only), 8-311866 (Ice Only) (2)	Block 35-northeast corner	S: 7/14/2009 14:00		Lab QC
H2FW3	Subsurface Soil (>12")/ Kim Viehweg	/G	VOA (21)	8-311867 (Ice Only) (1)	Block 35-southeast corner	S: 7/14/2009 15:30		--
H2FW4	Subsurface Soil (>12")/ Kim Viehweg	/G	VOA (21)	8-311868 (Ice Only) (1)	Block 35-southwest corner	S: 7/15/2009 7:35		--
H2FW5	Subsurface Soil (>12")/ Kim Viehweg	/G	VOA (21)	8-311869 (Ice Only) (1)	Salt Lake Public Health Center	S: 7/14/2009 11:50		--
H2FW6	Subsurface Soil (>12")/ Kim Viehweg	/G	VOA (21)	8-311870 (Ice Only) (1)	Salt Lake City Library	S: 7/14/2009 9:15		--
H2FW7	Subsurface Soil (>12")/ Kim Viehweg	/G	VOA (21)	8-311871 (Ice Only) (1)	Washington Square	S: 7/15/2009 8:40		--
H2FW8	Subsurface Soil (>12")/ Kim Viehweg	/G	VOA (21)	8-311872 (Ice Only) (1)	Decades	S: 7/15/2009 10:30		--

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: H2FT3, H2FW2	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____
VOA = CLP TCL Volatiles			

TR Number: 8-043013577-071309-0001

REGION COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

EPA USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No:
DAS No:

R

Region: 8	Date Shipped:	**Chain of Custody Record**	Sampler Signature:
Project Code:	Carrier Name: FedEx	Relinquished By (Date / Time)	Received By (Date / Time)
Account Code:	Airbill:	1	
CERCLIS ID: UTN000802657	Shipped to: KAP Technologies Inc. 9391 Grogans Mill Rd., Suite-A2 The Woodlands TX 77380 (281) 367-0065	2	
Spill ID:		3	
Site Name/State: Block 35/UT		4	
Project Leader: Kim Viehweg			
Action:			
Sampling Co:			

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
H2FW9	Field QC/ Kim Viehweg	/G	VOA (21)	8-311873 (Ice Only) (1)	Block 35-southwest corner	S: 7/15/2009 7:35		Field Duplicate
H2FX0	Field QC/ Kim Viehweg	/G	VOA (21)	8-311874 (HCL), 8-311874a (HCL) (2)	DERR	S: 7/14/2009 7:30		Trip Blank

Shipment for Case Complete? N	Sample(s) to be used tor laboratory QC: H2FT3, H2FW2	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: VOA = CLP TCL Volatiles	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

TR Number: 8-043013577-071309-0001

REGION COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

FedEx Express US Airbill

FedEx Tracking Number 8585 3853 9260

Form ID No. 0215

SAC 22

Sender's Copy

1 From *Please print and press hard.*

Date 7/16/09 Sender's FedEx Account Number 1328-8775-7

Sender's Name Kim Viehweg Phone (801) 536-4100

Company DEPT OF ENVIRONMENTAL QUALITY

Address 168 N 1950 W

Dept./Floor/Suite/Room

City SALT LAKE CITY State UT ZIP 84116-3085

2 Your Internal Billing Reference First 24 characters will appear on invoice. 1000,4691,NAC,KA108,M208PSIA

3 To

Recipient's Name Rao Alsakani Phone (281) 367-0065

Company KAP Technologies Inc.

Recipient's Address 9391 Grogan Mills Rd., Suite A2

We cannot deliver to P.O. boxes or P.O. ZIP Codes. Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City The Woodlands State TX ZIP 77380

0345930620

Store your addresses at fedex.com
Simplify your shipping. Manage your account. Access all the tools you need.

4a Express Package Service Packages up to 150 lbs.

- [ ] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [x] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available

FedEx Envelope rate not available. Minimum charge: One-pound rate. * To most locations.

4b Express Freight Service Packages over 150 lbs.

- [ ] FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available

* Call for Confirmation. ** To most locations.

5 Packaging

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

* Declared value limit $500

6 Special Handling Include Fedex address in Section 3

- [ ] SATURDAY Delivery NOT Available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [ ] HOLD Weekday at FedEx Location NOT Available for FedEx First Overnight.
- [ ] HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry ice — Dry ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging

- [ ] Cargo Aircraft Only

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No. Exp. Date

Total Packages	Total Weight	Total Declared Value†
1	45	$ .00

† Our liability is limited to $100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

FedEx Use Only

8 NEW Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Anyone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. Fee applies.

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Appendix F

Validation Reports and Laboratory Data

URS OPERATING SERVICES

1099 18th STREET
SUITE 710
DENVER, COLORADO 80202-1908
TEL: (303) 291-8200
FAX: (303) 291-8296

December 18, 2009

Ms. Margaret Williams
Site Assessment Manager
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street, Mail Code: 8EPR-B
Denver, Colorado 80202-1129

SUBJECT: START3, EPA Region 8, Contract No. EP-W-05-050, TDD No. 0911-04 Data Validation Reports for Block 35 Methylene Chloride Plume, Salt Lake City, Utah

Dear Margaret:

Attached are copies of the Data Validation Reports for the Block 35 Methylene Chloride Plume site in Salt Lake City, Utah. The reports are for Case Number 38726 and Sample Delivery Groups (SDGs) H2FT0, and H2FW1. The data validation was performed by our subcontractor, TechLaw. Copies of the Data Validation Reports were also forwarded to Dale Urban with the Utah Department of Environmental Quality.

If you have any questions, please call me at 303-291-8209.

Very truly yours,

URS OPERATING SERVICES, INC.

Kenton J. Alexander
Senior Chemist / Subcontracts Manager

cc: Chuck Baker/UOS (w/o attachment)
Dale Urban UDEQ-OERR
File/UOS

REGION VIII
DATA VALIDATION REPORT
ORGANICS

Case/TDD No.	Site Name		Operable Unit
38726 / 0911-04	Block 35 Methylene Chloride Plume		
RPM/OSC Name			
Margaret Williams			
Contractor Laboratory	Contract No.	SDG No.	Laboratory DPO/Region
KAP Technologies, Inc.	EPW05032	H2FT0	

Review Assigned Date: December 2, 2009 Data Validator: Lisa Tyson
Review Completion Date: December 9, 2009 Report Reviewer: Bill Fear

Sample ID	Matrix	Analysis
H2FT0	Water	CLP – Trace Volatile Analyses by SOM01.2
H2FT1		
H2FT2		
H2FT3		
H2FT4		
H2FT5		
H2FT6		
H2FT7		
H2FT8		
H2FT9		
H2FW0		
H2FX0		

DATA QUALITY STATEMENT

( ) Data are ACCEPTABLE according to EPA Functional Guidelines with no qualifiers (flags) added by the reviewer.
( ) Data are UNACCEPTABLE according to EPA Functional Guidelines.
(X) Data are acceptable with QUALIFICATIONS noted in review.

PO Attention Required? Yes _____ No ___X__ If yes, list the items that require attention:

ORGANIC DATA VALIDATION REPORT

REVIEW NARRATIVE SUMMARY

This data package was reviewed according to the EPA document "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," June 2008.

Raw data were reviewed for completeness and transcription accuracy onto the summary forms. Approximately 10-20% of the results reported in each of the samples, calibrations, and QC analyses were recalculated and verified. If problems were identified during the recalculation of results, a more thorough calculation check was performed.

The data package, SDG No. H2FT0 consisted of 12 water samples for CLP trace volatile organic analyses by SOM01.2.

The following tables list data qualifiers added to the data. (Please see Data Qualifier Definitions, attached to the end of this report.)

Sample Number	Volatile Compound	Qualifier	Reason For Qualification	Review Section
H2FT4, H2FT5, H2FT6, H2FT7, H2FT8, H2FT9, H2FW0, H2FX0	Bromomethane Bromoform	UJ	Continuing calibration %D greater than 30%	4
H2FT2, H2FT3, H2FT8	Dichlorodifluoromethane Chloromethane Bromomethane Chloroethane Carbon disulfide	UJ	Low DMC recovery	5
H2FT5	Methylene chloride	J	Elevated DMC recovery	
H2FT7	Methylcyclohexane Toluene o-Xylene m,p-Xylene Isopropylbenzene			
H2FT1, H2FT3	All compounds*	J detects	High internal standard area count	7
H2FT2	Methylene chloride	J		
H2FT4, H2FT5, H2FT6, H2FT8, H2FT9, H2FX0	Methylene chloride	U	Method blank contamination	8

* Note that methylcyclohexane was reported from diluted analysis in sample H2FT3 and the diluted result did not result in qualification.

1. DELIVERABLES

All deliverables were present as specified in the subcontract.

VOA: Yes_X_ No____

Comments: None.

2. HOLDING TIMES AND PRESERVATION CRITERIA

All holding times and preservation criteria were met.

VOA: Yes_X_ No____

Comments: The samples were analyzed within 14 days from sample collection. The sample coolers were received within the temperature criteria of 4 ± 2 °C. No shipping or receiving problems were noted. Chain-of-custody, summary forms, and raw data were evaluated.

3. BFB PERFORMANCE RESULTS

The bromofluorobenzene (BFB) performance results were within the specified control limits. All appropriate BFB results were included.

VOA: Yes_X_ No____

Comments: BFB instrument performance checks were run at the required frequency. Ion abundance criteria were met and were verified from raw data.

4. INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS

Initial instrument calibrations were performed according to method requirements and met the project specified control limits.

VOA: Yes_X_ No____

Comments: Initial calibration standards containing both target compounds and the deuterated monitoring compounds (DMCs) were analyzed at the correct frequency. The average relative response factors (RRFs) for the compounds identified by the Functional Guidelines as poor responders were greater than or equal to 0.01 and the RRFs for all other target compounds were greater than or equal to 0.05. The percent relative standard deviations (%RSDs) of the RRFs were less than or equal to 40% for the poor responders and less than or equal to 30% for all other analytes. Summary forms and raw data were evaluated.

Continuing instrument calibrations were performed according to method requirements and met project specified control limits.

VOA: Yes___ No_X_

Comments: Continuing calibration standards containing both target compounds and the DMCs were analyzed at the beginning and end of each 12-hour analysis period. The RRFs for the compounds identified by the Functional Guidelines as poor responders were greater than or equal to 0.01 and the RRFs for all other target compounds were greater than or equal to 0.05. The opening standard percent differences (%Ds) of the RRFs were less than or equal to 40% for the poor responders and less than or equal to 30% for all other analytes with the exceptions noted below. All %Ds for the closing standards were less than 50%. Summary forms and raw data were evaluated.

The following table lists the %Ds that were greater than 30% and the qualifiers added to the data:

Compound	%D	Associated Samples	Qualifiers
Bromomethane	30.4%	H2FT4, H2FT5, H2FT6, H2FT7, H2FT8, H2FT9, H2FW0, H2FX0	UJ
Bromoform	30.1%		

5. DEUTERATED MONITORING COMPOUNDS

Deuterated monitoring compound (DMC) recovery analysis was performed according to method requirements and results met specified control limits.

VOA: Yes___ No_X_

Comments: DMCs were added to all samples and blanks. Summary forms and raw data were evaluated.

The following table lists the samples with DMC percent recoveries (%Rs) outside control limits and the qualifiers added to the data:

Sample Number	DMC	%R	QC Limits	Coihpounds	Qualifiers
H2FT2 H2FT3 H2FT8	Chloroethane-d5	69% 56% 70%	71-131%	Dichlorodifluoromethane Chloromethane Bromomethane Chloroethane Carbon disulfide	UJ

Sample Number	DMC	%R	QC Limits	Compounds	Qualifiers
H2FT5	1,2-Dichloroethane-d4	137%	78-129%	Trichlorofluoromethane 1,1,2-Trichloro-1,2,2-trifluoroethane Methyl acetate Methylene chloride Methyl-tert-butyl ether 1,1,1-Trichloroethane Carbon Tetrachloride 1,2-Dibromoethane 1,2-Dichloroethane	J detects (only methylene chloride detected)
H2FT7	1,2-Dichloropropane-d6	129%	79-124%	Cyclohexane Methylcyclohexane 1,2-Dichloropropane Bromodichloromethane	J detects (only methylcyclohexane detected and reported)
H2FT7	Toluene-d8	141%	77-121%	Trichloroethene Toluene Tetrachloroethene Ethylbenzene o-Xylene m,p-Xylene Styrene Isopropylbenzene	J detects (only toluene, o-xylene, m,p-xylene, and isopropylbenzene detected and reported)
H2FT5 H2FT6	1,1-Dichloroethene-d2	116% 109%	55-104%	Trans-1,2-dichloroethene 1,1-Dichloroethene Cis-1,2-dichloroethene	None
H2FT7	Chloroform-d	123%	78-121%	1,1-Dichloroethane Bromochloromethane Chloroform Dibromochloromethane Bromoform	None
H2FT3 H2FT7	Trans-1,3-dichloropropene-d4	139% 164%	73-121%	Cis-1,3-dichloropropene Trans-1,3-dichloropropene 1,1,2-Trichloroethane	None
H2FT7	1,1,2,2-Tetrachloroethane-d2	158%	73-125%	1,1,2,2-Tetrachloroethane 1,2-Dibromo-3-chloropropane	None
H2FT7DL	1,1,2,2-Tetrachloroethane-d2	142%	73-125%	1,1,2,2-Tetrachloroethane 1,2-Dibromo-3-chloropropane	These compounds not reported from this analysis
H2FT7RE	Chloroethane-d5 1,2-Dichloroethane-d4 1,2-Dichloropropane-d6 Toluene-d8 Trans-1,3-DCP-d4 1,1,2,2-PCA-d2	62% 153% 138% 128% 167% 130%	71-131% 78-129% 79-124% 77-121% 73-121% 73-125%	Various	Sample results not used

It should be noted that sample H2FT7 was reanalyzed due to poor DMC recoveries. As indicated in the table above, the DMC recoveries in the reanalysis did not improve and the results should not be used.

The MS/MSD analyses also reported DMC recoveries outside QC limits; however, not qualification is taken on QC samples.

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses were performed according to method requirements and results met recommended recovery and precision limits.

VOA: Yes___ No_X_

Comments: Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on sample H2FT3. The percent recoveries and the relative percent differences (RPDs) were within the appropriate QC limits, with the following exceptions. The RPDs for trichloroethene (29%), toluene (39%), and chlorobenzene (17%) exceeded confrol limits. No qualification is taken based solely on MS/MSD data. Summary forms and raw data were evaluated.

7. INTERNAL STANDARD AREA

Internal standard area analysis was performed according to method requirements and results met specified control limits.

VOA: Yes___ No_X_

Comments: Internal standard area counts did not vary by more than 40% from the associated 12-hour calibration standard, with the exceptions noted below. The internal standard retention times did not vary more than ± 0.33 minutes from the retention time of the associated 12-hour calibration standards. Summary forms and raw data were evaluated. The following table lists internal standards whose area counts were less than ±40% from the area counts of the associated 12-hour calibration standards and the qualifiers added to the data:

Sample Number	Internal Standard	Low/High/ Extremely Low	Compounds	Qualifiers
H2FT1, H2FT3	Chlorobenzene-d5 1,4-Difluorobenzene 1,4-Dichlorobenzene-d4	High	All compounds*	J detects
H2FT2	Chlorobenzene-d5 1,4-Difluorobenzene	High	Detected associated compounds	J detects (only methylene chloride detected)

* Note that methylcyclohexane was reported from diluted analysis in sample H2FT3 and the diluted result did not result in qualification.

The intemal standard area coimt for 1,4-dichlorobenzene-d4 was also high in sample H2FT0; however, compounds associated with this intemal standard were not detected in the sample and no qualification was necessary.

All intemal standard area counts were high in the MS/MSD analyses; however, no qualification is taken on QC samples.

8. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to method requirements and results met specified limits.

VOA: Yes___ No_X_

Coinments: Method blank analyses were performed after the calibration standards and once for every 12-hour time period. A storage blank (VHBLK03) and an instrument blank (VIBLK08) were also analyzed. Summary forms and raw data were evaluated.

Contamination was detected in the method blanks as summarized in the following table. Quantitation limits in the associated samples were raised in accordance with the mles set forth in the "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," June 2008.

Blank Target Compounds

Blank ID	Contaminant	Concentration Found in Blank (ug/L)	Associated Samples	Concentration Found in Sample (ug/L)	Qualifier/ Adjustment
VBLK89	Methylene chloride	0.44	H2FT4 H2FT5 H2FT6 H2FT8 H2FT9 H2FX0	<CRDL	0.50 U

Method blank VBLK89 also reported chloromethane at 0.26 ug/L; however, the associated sample results were either non-detect or greater than the action level and no qualification was necessary.

The storage blank also reported toluene at 0.17 ug/L; however, the associated sample results were greater than the action level and no qualification was necessary. The instrument blank did not report any detected target compounds.

9. SAMPLE RESULTS

The sample results were reviewed and all compound identifications were acceptable and met contract requirements.

VOA: Yes_X_ No____

Comments: Sample relative retention times (RRTs) were within ± 0.06 RRT units of the standard RRT. Ions present in the standard mass spectruru at a relative intensity greater than 10% were present in the sample spectrum. Relative intensities of ions agreed within ±20% between standard and sample spectra. All samples results and CRQL were correctly calculated.

The result for methylcyclohexane in sample H2FT3 exceeded the calibration range in the original undiluted analysis and was flagged "E" by the laboratory. This sample was reanalyzed at a 5x dilution and the result was within calibration range. Therefore, the result for methylcyclohexane should be reported from the diluted analysis and all other results reported from the original undiluted analysis of sample H2FT3.

The results for cyclohexane and benzene in sample H2FT7 exceeded the calibration range in the original undiluted analysis and was flagged "E" by the laboratory. This sample was reanalyzed at a 10x dilution and the results were within calibration range. Therefore, the results for cyclohexane and benzene should be reported from the diluted analysis and all other results reported from the original undiluted analysis of sample H2FT7.

Tentatively identified compounds (TICs) were qualitatively assessed by a mass spectral library search. No qualification was applied to the TICs.

10. Additional Comments or Problems/Resolutions Not Addressed Above

VOA: Yes___ No_X_

Comments: None.

ORGANIC DATA QUALITY ASSURANCE REVIEW

Region VIII

DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

GENERAL QUALIFIERS for use with both **INORGANIC** and **ORGANIC DATA**

R	-	Reported value is "rejected." Resampling or reanalysis may be necessary to verify the presence or absence of the compound.
J	-	The associated numerical value is an estimated quantity because the Quality Control criteria were not met.
U J	-	The reported quantitation limit is estimated because Quality Control criteria were not met. Element or compound was not detected.
N J	-	Estimated value of a tentatively identified compound. (Identified with a CAS number.) **ORGANICS** analysis only.
U	-	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT0

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.01

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02416

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	14	
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.54	
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.49	J
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

12/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT0

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.01

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02416

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.62	
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.28	J
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	15	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

JT 11/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT0

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.01

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02416

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	000565-59-3	Pentane, 2,3-dimethyl-	6.62	60	NJ
02		Unknown-01	7.24	41	J
03		Unknown-02	8.51	9.2	J
04	004850-28-6	Cyclopentane, 1,2,4-trimethyl	8.76	10.	NJ
05	000565-75-3	Pentane, 2,3,4-trimethyl-	9.09	30	NJ
06	000560-21-4	Pentane, 2,3,3-trimethyl-	9.28	48	NJ
07		Unknown-03	10.74	12	J
08	000103-65-1	Benzene, propyl-	14.74	70	NJ
09	000104-51-8	Benzene, butyl-	15.55	26	NJ
10		Unknown-04	15.55	13	J
11	000637-50-3	Benzene, 1-propenyl-	16.05	71	NJ
12	000141-93-5	Benzene, 1,3-diethyl-	16.12	36	NJ
13	000527-84-4	Benzene, 1-methyl-2-(1-methyl	16.55	13	NJ
14	001005-64-7	Benzene, 1-butenyl-, (E)-	16.59	16	NJ
15	007525-62-4	Benzene, 1-ethenyl-3-ethyl-	16.65	64	NJ
16	004912-92-9	IH-Indene, 2,3-dihydro-1,1-di	16.84	12	NJ
17	000095-93-2	Benzene, 1,2,4,5-tetramethyl-	16.97	88	NJ
18	017059-48-2	IH-Indene, 2,3-dihydro-1,6-di	17.07	13	NJ
19	056253-64-6	Benzene, (2-methyl-1-butenyl)	17.22	37	NJ
20	004175-53-5	IH-Indene, 2,3-dihydro-1,3-di	17.28	13	NJ
21	000488-23-3	Benzene, 1,2,3,4-tetramethyl-	17.44	8.9	NJ
22	020836-11-7	IH-Indene,2,3-dihydro-2,2-dim	17.69	26	NJ
23	004706-90-5	Benzene, 1,3-dimethyl-5-(1-me	17.75	19	NJ
24		Unknown-05	17.79	19	J
25	004912-92-9	IH-Indene, 2,3-dihydro-1,1-di	17.83	15	NJ
26	004920-99-4	Benzene, 1-ethyl-3-(1-methyle	17.86	16	NJ
27	006682-71-9	IH-Indene, 2,3-dihydro-4,7-di	18.55	22	NJ
28	017851-27-3	Benzene, 1-ethyl-2,4,5-trimet	18.71	14	NJ
29	001559-81-5	Naphthalene,1,2,34-tetrahydro	18.76	11	NJ
30	005973-71-7	Benzaldehyde, 3,4-dimethyl-	18.95	16	NJ
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

11/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT1

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.02

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02417

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.50	U	
74-87-3	Chloromethane	4.1		J
75-01-4	Vinyl chloride	0.50	U	
74-83-9	Bromomethane	0.50	U	
75-00-3	Chloroethane	0.50	U	
75-69-4	Trichlorofluoromethane	0.50	U	
75-35-4	1,1-Dichloroethene	0.50	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	
67-64-1	Acetone	5.0	U	
75-15-0	Carbon disulfide	0.50	U	
79-20-9	Methyl acetate	0.50	U	
75-09-2	Methylene chloride	0.28	J	J
156-60-5	trans-1,2-Dichloroethene	0.50	U	
1634-04-4	Methyl tert-butyl ether	0.50	U	
75-34-3	1,1-Dichloroethane	0.50	U	
156-59-2	cis-1,2-Dichloroethene	0.50	U	
78-93-3	2-Butanone	5.0	U	
74-97-5	Bromochloromethane	0.50	U	
67-66-3	Chloroform	0.50	U	
71-55-6	1,1,1-Trichloroethane	0.50	U	
110-82-7	Cyclohexane	16		J
56-23-5	Carbon tetrachloride	0.50	U	
71-43-2	Benzene	0.50	U	
107-06-2	1,2-Dichloroethane	0.50	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

12/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT1

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.02

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02417

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
79-01-6	Trichloroethene	0.50	U	
108-87-2	Methylcyclohexane	0.50	U	
78-87-5	1,2-Dichloropropane	0.50	U	
75-27-4	Bromodichloromethane	0.50	U	
10061-01-5	cis-1,3-Dichloropropene	0.50	U	
108-10-1	4-Methyl-2-pentanone	5.0	U	
108-88-3	Toluene	0.50	U	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	
79-00-5	1,1,2-Trichloroethane	0.50	U	
127-18-4	Tetrachloroethene	0.50	U	
591-78-6	2-Hexanone	5.0	U	
124-48-1	Dibromochloromethane	0.50	U	
106-93-4	1,2-Dibromoethane	0.50	U	
108-90-7	Chlorobenzene	0.50	U	
100-41-4	Ethylbenzene	2.4		J
95-47-6	o-Xylene	0.50	U	
179601-23-1	m,p-Xylene	0.59		J
100-42-5	Styrene	0.50	U	
75-25-2	Bromoform	0.50	U	
98-82-8	Isopropylbenzene	8.5		J
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	
541-73-1	1,3-Dichlorobenzene	0.50	U	
106-46-7	1,4-Dichlorobenzene	0.50	U	
95-50-1	1,2-Dichlorobenzene	0.50	U	
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	
120-82-1	1,2,4-Trichlorobenzene	0.50	U	
87-61-6	1,2,3-Trichlorobenzene	0.50	U	

VT 12/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT1

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.02

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02417

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L. Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	000075-83-2	Butane, 2,2-dimethyl-	3.25	50	NJ
02	000079-29-8	Butane, 2,3-dimethyl-	3.80	160	NJ
03		Unknown-01	5.28	18	J
04		Unknown-02	5.43	80	J
05		Unknown-03	5.69	9.4	J
06	000562-49-2	Pentane, 3,3-dimethyl-	6.23	18	NJ
07	000565-59-3	Pentane, 2,3-dimethyl-	6.62	92	NJ
08	001638-26-2	Cyclopentane, 1,1-dimethyl-	6.81	18	NJ
09	000617-78-7	Pentane, 3-ethyl-	7.09	19	NJ
10		Unknown-04	7.24	65	J
11		Unknown-05	8.30	12	J
12		Unknown-06	8.43	11	J
13	000589-43-5	Hexane, 2,4-dimethyl-	8.51	13	NJ
14	000565-75-3	Pentane, 2,3,4-trimethyl-	9.09	21	NJ
15	000560-21-4	Pentane, 2,3,3-trimethyl-	9.28	28	NJ
16	000103-65-1	Benzene, propyl-	14.74	27	NJ
17	000538-93-2	Benzene, (2-methylpropyl)-	15.55	13	NJ
18		Unknown-07	15.55	9.5	J
19	000141-93-5	Benzene, 1,3-diethyl-	16.05	21	NJ
20	000105-05-5	Benzene, 1,4-diethyl-	16.12	9.2	NJ
21	000135-01-3	Benzene, 1,2-diethyl-	16.13	12	NJ
22	001074-55-1	Benzene, 1-methyl-4-propyl-	16.38	9.5	NJ
23	000527-84-4	Benzene, 1-methyl-2-(1-methyl	16.55	18	NJ
24	007525-62-4	Benzene, 1-ethenyl-3-ethyl-	16.65	20	NJ
25	000488-23-3	Benzene, 1,2,3,4-tetramethyl-	16.97	24	NJ
26	002039-89-6	Benzene, 2-ethenyl-1,4-dimeth	17.23	15	NJ
27	006682-71-9	1H-Indene, 2,3-dihydro-4,7-di	17.69	10	NJ
28	000700-12-9	Benzene, pentamethyl-	17.75	8.7	NJ
29	006682-71-9	IH-Indene, 2,3-dihydro-4,7-di	18.54	12	NJ
30	005779-95-3	Benzaldehyde, 3,5-dimethyl-	18.95	27	NJ
	E9667961	Total Alkanes	N/A		

1 EPA-designated Registry Number.

JT 10/5/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT2

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.03

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02418

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.50	U	UJ
74-87-3	Chloromethane	0.50	U	UJ
75-01-4	Vinyl chloride	0.50	U	
74-83-9	Bromomethane	0.50	U	UJ
75-00-3	Chloroethane	0.50	U	UJ
75-69-4	Trichlorofluoromethane	0.50	U	
75-35-4	1,1-Dichloroethene	0.50	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	
67-64-1	Acetone	5.0	U	
75-15-0	Carbon disulfide	0.50	U	UJ
79-20-9	Methyl acetate	0.50	U	
75-09-2	Methylene chloride	0.98		J
156-60-5	trans-1,2-Dichloroethene	0.50	U	
1634-04-4	Methyl tert-butyl ether	0.50	U	
75-34-3	1,1-Dichloroethane	0.50	U	
156-59-2	cis-1,2-Dichloroethene	0.50	U	
78-93-3	2-Butanone	5.0	U	
74-97-5	Bromochloromethane	0.50	U	
67-66-3	Chloroform	0.50	U	
71-55-6	1,1,1-Trichloroethane	0.50	U	
110-82-7	Cyclohexane	0.50	U	
56-23-5	Carbon tetrachloride	0.50	U	
71-43-2	Benzene	0.50	U	
107-06-2	1,2-Dichloroethane	0.50	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

JT 11/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT2

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.03

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02418

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

7/21/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT2

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.03

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02418

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.14	4.0	J
02	005779-95-3	Benzaldehyde, 3,5-dimethyl-	18.96	3.8	NJ
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E9667961	Total Alkanes	N/A		

1 EPA-designated Registry Number.

12/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT3

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.04

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02419

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	21	E
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	6.2	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

J 23D

J

Report Methylcyclohexane from diluted analysis
(result is not qualified)
JF 12/2/09

JF 12/2/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT3

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.04

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02419

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	000565-59-3	Pentane, 2,3-dimethyl-	6.63	18	NJ
02	000560-21-4	Pentane, 2,3,3-trimethyl-	9.29	17	NJ
03	000473-91-6	Cyclopentene, 1,2,3-trimethyl	10.75	16	NJ
04		Unknown-01	14.56	16	J
05	000103-65-1	Benzene, propyl-	14.75	59	NJ
06		Unknown-02	15.55	50	J
07	000527-84-4	Benzene, 1-methyl-2-(1-methyl	15.70	19	NJ
08	000105-05-5	Benzene, 1,4-diethyl-	16.06	89	NJ
09	000141-93-5	Benzene, 1,3-diethyl-	16.13	36	NJ
10	000104-51-8	Benzene, butyl-	16.19	24	NJ
11	000933-98-2	Benzene, 1-ethyl-2,3-dimethyl	16.56	120	NJ
12	000824-63-5	1H-Indene, 2,3-dihydro-2-meth	16.59	24	NJ
13	007525-62-4	Benzene, 1-ethenyl-3-ethyl-	16.66	94	NJ
14	056253-64-6	Benzene, (2-methyl-1-butenyl)	16.75	22	NJ
15	004912-92-9	1H-Indene, 2,3-dihydro-1,1-di	16.84	20	NJ
16	000488-23-3	Benzene, 1,2,3,4-tetramethyl-	16.98	160	NJ
17	001595-16-0	Benzene, 1-methyl-4-(1-methyl	17.05	37	NJ
18	004701-36-4	Benzene, (1-ethyl-1-propenyl)	17.24	82	NJ
19	004175-53-5	1H-Indene, 2,3-dihydro-1,3-di	17.29	16	NJ
20	001758-85-6	Benzene, 2,4-diethyl-1-methyl	17.35	16	NJ
21	003454-07-7	Benzene, 1-ethenyl-4-ethyl-	17.42	66	NJ
22	002049-95-8	Benzene, (1,1-dimethylpropyl)	17.49	34	NJ
23	001075-22-5	1H-Indene, 2,3-dihydro-5,6-di	17.69	60	NJ
24	000700-12-9	Benzene, pentamethyl-	17.75	37	NJ
25	1000164-42-6	Bicyclo[4.2.1]nona-2,4,7-trie	17.79	35	NJ
26		Unknown-03	17.86	84	J
27		Unknown-04	18.13	17	J
28		Unknown-05	18.22	21	J
29	006682-71-9	1H-Indene, 2,3-dihydro-4,7-di	18.35	25	NJ
30	006682-71-9	1H-Indene, 2,3-dihydro-4,7-di	18.55	26	NJ
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

VT 8/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT3

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.04

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02419

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.50	U	UJ
74-87-3	Chloromethane	0.50	U	UJ
75-01-4	Vinyl chloride	0.50	U	
74-83-9	Bromomethane	0.50	U	UJ
75-00-3	Chloroethane	0.50	U	UJ
75-69-4	Trichlorofluoromethane	0.50	U	
75-35-4	1,1-Dichloroethene	0.50	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	
67-64-1	Acetone	5.0	U	
75-15-0	Carbon disulfide	0.50	U	UJ
79-20-9	Methyl acetate	0.50	U	
75-09-2	Methylene chloride	0.55		J
156-60-5	trans-1,2-Dichloroethene	0.50	U	
1634-04-4	Methyl tert-butyl ether	0.50	U	
75-34-3	1,1-Dichloroethane	0.50	U	
156-59-2	cis-1,2-Dichloroethene	0.50	U	
78-93-3	2-Butanone	5.0	U	
74-97-5	Bromochloromethane	0.50	U	
67-66-3	Chloroform	0.50	U	
71-55-6	1,1,1-Trichloroethane	0.50	U	
110-82-7	Cyclohexane	0.93		J
56-23-5	Carbon tetrachloride	0.50	U	
71-43-2	Benzene	0.50	U	
107-06-2	1,2-Dichloroethane	0.50	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

VT 12/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT3DL

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.04DL

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02435

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	2.5	U
74-87-3	Chloromethane	2.5	U
75-01-4	Vinyl chloride	2.5	U
74-83-9	Bromomethane	2.5	U
75-00-3	Chloroethane	2.5	U
75-69-4	Trichlorofluoromethane	2.5	U
75-35-4	1,1-Dichloroethene	2.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U
67-64-1	Acetone	25	U
75-15-0	Carbon disulfide	2.5	U
79-20-9	Methyl acetate	2.5	U
75-09-2	Methylene chloride	3.2	DB
156-60-5	trans-1,2-Dichloroethene	2.5	U
1634-04-4	Methyl tert-butyl ether	2.5	U
75-34-3	1,1-Dichloroethane	2.5	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
78-93-3	2-Butanone	25	U
74-97-5	Bromochloromethane	2.5	U
67-66-3	Chloroform	2.5	U
71-55-6	1,1,1-Trichloroethane	2.5	U
110-82-7	Cyclohexane	2.5	U
56-23-5	Carbon tetrachloride	2.5	U
71-43-2	Benzene	2.5	U
107-06-2	1,2-Dichloroethane	2.5	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

U

Only report methylcyclohexane (230) from this analysis.

VA 10/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT3DL

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.04DL

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02435

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	2.5	U
108-87-2	Methylcyclohexane	23	D
78-87-5	1,2-Dichloropropane	2.5	U
75-27-4	Bromodichloromethane	2.5	U
10061-01-5	cis-1,3-Dichloropropene	2.5	U
108-10-1	4-Methyl-2-pentanone	25	U
108-88-3	Toluene	2.5	U
10061-02-6	trans-1,3-Dichloropropene	2.5	U
79-00-5	1,1,2-Trichloroethane	2.5	U
127-18-4	Tetrachloroethene	2.5	U
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	2.5	U
106-93-4	1,2-Dibromoethane	2.5	U
108-90-7	Chlorobenzene	2.5	U
100-41-4	Ethylbenzene	2.5	U
95-47-6	o-Xylene	2.5	U
179601-23-1	m,p-Xylene	2.5	U
100-42-5	Styrene	2.5	U
75-25-2	Bromoform	2.5	U
98-82-8	Isopropylbenzene	6.4	D
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U
541-73-1	1,3-Dichlorobenzene	2.5	U
106-46-7	1,4-Dichlorobenzene	2.5	U
95-50-1	1,2-Dichlorobenzene	2.5	U
96-12-8	1,2-Dibromo-3-chloropropane	2.8	D
120-82-1	1,2,4-Trichlorobenzene	2.5	U
87-61-6	1,2,3-Trichlorobenzene	2.5	U

Only report methylcyclohexane (230) from this analysis

1/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT3DL

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.04DL

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02435

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	000565-59-3	Pentane, 2,3-dimethyl-	6.62	200	DNJ
02		Unknown-01	7.24	170	DJ
03		Unknown-02	8.52	81	DJ
04	000565-75-3	Pentane, 2,3,4-trimethyl-	9.09	150	DNJ
05	000560-21-4	Pentane, 2,3,3-trimethyl-	9.28	220	DNJ
06		Unknown-03	9.47	70	DJ
07	000589-81-1	Heptane, 3-methyl-	9.65	110	DNJ
08	000103-65-1	Benzene, propyl-	14.75	91	DNJ
09	000135-01-3	Benzene, 1,2-diethyl-	16.06	130	DNJ
10	000527-84-4	Benzene, 1-methyl-2-(1-methyl	16.56	180	DNJ
11	007525-62-4	Benzene, 1-ethenyl-3-ethyl-	16.66	140	DNJ
12	000488-23-3	Benzene, 1,2,3,4-tetramethyl-	16.97	240	DNJ
13	003454-07-7	Benzene, 1-ethenyl-4-ethyl-	17.24	120	DNJ
14	056253-64-6	Benzene, (2-methyl-1-butenyl)	17.69	100	DNJ
15		Unknown-04	17.86	81	DJ
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

JT 10/7/09

IB - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H2FT4

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.05

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02424

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

JJ

8/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT4

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.05

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02424

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.14	4.7	JB
02		Unknown-02	14.41	2.1	J
03		Unknown-03	14.54	1.6	J
04					
05					
06					
07					
08					
09					
10					
11					
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25					
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27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

11/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT4

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.05

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02424

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.50	U	
74-87-3	Chloromethane	0.50	U	
75-01-4	Vinyl chloride	0.50	U	
74-83-9	Bromomethane	0.50	U	UJ
75-00-3	Chloroethane	0.50	U	
75-69-4	Trichlorofluoromethane	0.50	U	
75-35-4	1,1-Dichloroethene	0.50	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	
67-64-1	Acetone	5.0	U	
75-15-0	Carbon disulfide	0.50	U	
79-20-9	Methyl acetate	0.50	U	
75-09-2	Methylene chloride	0.25	JB	0.50 U
156-60-5	trans-1,2-Dichloroethene	0.50	U	
1634-04-4	Methyl tert-butyl ether	0.50	U	
75-34-3	1,1-Dichloroethane	0.50	U	
156-59-2	cis-1,2-Dichloroethene	0.50	U	
78-93-3	2-Butanone	5.0	U	
74-97-5	Bromochloromethane	0.50	U	
67-66-3	Chloroform	0.50	U	
71-55-6	1,1,1-Trichloroethane	0.50	U	
110-82-7	Cyclohexane	0.50	U	
56-23-5	Carbon tetrachloride	0.50	U	
71-43-2	Benzene	0.50	U	
107-06-2	1,2-Dichloroethane	0.50	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

JT 12/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT5

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.06

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02425

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.50	U	
74-87-3	Chloromethane	0.50	U	
75-01-4	Vinyl chloride	0.50	U	
74-83-9	Bromomethane	0.50	U	UJ
75-00-3	Chloroethane	0.50	U	
75-69-4	Trichlorofluoromethane	0.50	U	
75-35-4	1,1-Dichloroethene	0.50	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	
67-64-1	Acetone	5.0	U	
75-15-0	Carbon disulfide	0.50	U	
79-20-9	Methyl acetate	0.50	U	
75-09-2	Methylene chloride	0.34	JB	0.50UJ
156-60-5	trans-1,2-Dichloroethene	0.50	U	
1634-04-4	Methyl tert-butyl ether	0.50	U	
75-34-3	1,1-Dichloroethane	0.50	U	
156-59-2	cis-1,2-Dichloroethene	0.50	U	
78-93-3	2-Butanone	5.0	U	
74-97-5	Bromochloromethane	0.50	U	
67-66-3	Chloroform	0.50	U	
71-55-6	1,1,1-Trichloroethane	0.50	U	
110-82-7	Cyclohexane	0.50	U	
56-23-5	Carbon tetrachloride	0.50	U	
71-43-2	Benzene	0.50	U	
107-06-2	1,2-Dichloroethane	0.50	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

12/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT5

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.06

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02425

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U UJ
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

JT 12/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT5

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.06

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02425

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.14	5.1	JB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

8/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT6

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.07

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02426

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.50	U	
74-87-3	Chloromethane	0.50	U	
75-01-4	Vinyl chloride	0.50	U	
74-83-9	Bromomethane	0.50	U	UJ
75-00-3	Chloroethane	0.50	U	
75-69-4	Trichlorofluoromethane	0.50	U	
75-35-4	1,1-Dichloroethene	0.50	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	
67-64-1	Acetone	5.0	U	
75-15-0	Carbon disulfide	0.50	U	
79-20-9	Methyl acetate	0.50	U	
75-09-2	Methylene chloride	0.30	JB	0.50U
156-60-5	trans-1,2-Dichloroethene	0.50	U	
1634-04-4	Methyl tert-butyl ether	0.50	U	
75-34-3	1,1-Dichloroethane	0.50	U	
156-59-2	cis-1,2-Dichloroethene	0.50	U	
78-93-3	2-Butanone	5.0	U	
74-97-5	Bromochloromethane	0.50	U	
67-66-3	Chloroform	0.50	U	
71-55-6	1,1,1-Trichloroethane	0.50	U	
110-82-7	Cyclohexane	0.50	U	
56-23-5	Carbon tetrachloride	0.50	U	
71-43-2	Benzene	0.50	U	
107-06-2	1,2-Dichloroethane	0.50	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

CT 12/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT6

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.07

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02426

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

12/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT6

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.07

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02426

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.14	4.9	JB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

JT 12/2/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT7

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.08

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02427

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.50	U	
74-87-3	Chloromethane	0.50	U	
75-01-4	Vinyl chloride	0.50	U	
74-83-9	Bromomethane	0.50	U	UJ
75-00-3	Chloroethane	0.50	U	
75-69-4	Trichlorofluoromethane	0.50	U	
75-35-4	1,1-Dichloroethene	0.50	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	
67-64-1	Acetone	5.0	U	
75-15-0	Carbon disulfide	0.50	U	
79-20-9	Methyl acetate	0.50	U	
75-09-2	Methylene chloride	0.50	U	
156-60-5	trans-1,2-Dichloroethene	0.50	U	
1634-04-4	Methyl tert-butyl ether	1.7		
75-34-3	1,1-Dichloroethane	0.50	U	
156-59-2	cis-1,2-Dichloroethene	0.50	U	
78-93-3	2-Butanone	5.0	U	
74-97-5	Bromochloromethane	0.50	U	
67-66-3	Chloroform	0.50	U	
71-55-6	1,1,1-Trichloroethane	0.50	U	
110-82-7	Cyclohexane	89	E	~~J~~ 100D
56-23-5	Carbon tetrachloride	0.50	U	
71-43-2	Benzene	62	E	~~J~~ 81D
107-06-2	1,2-Dichloroethane	0.50	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

Report cyclohexane and benzene from diluted analysis

JT 8/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT7

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.08

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02427

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	13	J
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	2.6	J
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.91	J
179601-23-1	m,p-Xylene	0.41	J
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	11	J
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

7/8/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT7

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.08

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02427

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	1.99	11	J
02	000078-78-4	Butane, 2-methyl-	2.46	29	NJ
03	000930-18-7	Cyclopropane, 1,2-dimethyl-,	3.08	12	NJ
04		Unknown-02	3.80	9.1	J
05	000287-92-3	Cyclopentane	3.83	26	NJ
06	000616-12-6	2-Pentene, 3-methyl-, (E)-	5.05	4.6	NJ
07	000096-37-7	Cyclopentane, methyl-	5.43	33	NJ
08	000563-79-1	2-Butene, 2,3-dimethyl-	5.60	6.1	NJ
09	000693-89-0	Cyclopentene, 1-methyl-	6.23	13	NJ
10	000565-59-3	Pentane, 2,3-dimethyl-	6.62	17	NJ
11		Unknown-03	7.09	4.5	J
12		Unknown-04	7.24	4.4	J
13	002815-58-9	Cyclopentane, 1,2,4-trimethyl	8.76	10	NJ
14	000591-49-1	Cyclohexene, 1-methyl-	9.73	5.3	NJ
15	000590-66-9	Cyclohexane, 1,1-dimethyl-	10.20	11	NJ
16	000473-91-6	Cyclopentene, 1,2,3-trimethyl	10.74	5.2	NJ
17	003073-66-3	Cyclohexane, 1,1,3-trimethyl-	11.63	6.0	NJ
18	000767-58-8	Indan, 1-methyl-	16.65	5.3	NJ
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	11	J

[1] EPA-designated Registry Number.

7/27/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT7DL

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.08DL

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02436

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	5.0	U	
74-87-3	Chloromethane	5.0	U	
75-01-4	Vinyl chloride	5.0	U	
74-83-9	Bromomethane	5.0	U	UJ
75-00-3	Chloroethane	5.0	U	
75-69-4	Trichlorofluoromethane	5.0	U	
75-35-4	1,1-Dichloroethene	5.0	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	
67-64-1	Acetone	50	U	
75-15-0	Carbon disulfide	5.0	U	
79-20-9	Methyl acetate	5.0	U	
75-09-2	Methylene chloride	5.7	DB	U
156-60-5	trans-1,2-Dichloroethene	5.0	U	
1634-04-4	Methyl tert-butyl ether	5.0	U	
75-34-3	1,1-Dichloroethane	5.0	U	
156-59-2	cis-1,2-Dichloroethene	5.0	U	
78-93-3	2-Butanone	50	U	
74-97-5	Bromochloromethane	5.0	U	
67-66-3	Chloroform	5.0	U	
71-55-6	1,1,1-Trichloroethane	5.0	U	
110-82-7	Cyclohexane	100	D	
56-23-5	Carbon tetrachloride	5.0	U	
71-43-2	Benzene	81	D	
107-06-2	1,2-Dichloroethane	5.0	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

Only report cyclohexane and benzene (100D & 81D, resp.) from this analysis.

UJ 12/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT7DL

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.08DL

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02436

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: hot dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	16	D
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	4.4	DJ
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	21	D
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
95-47-6	o-Xylene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	12	D
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

JJ

T 10/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT7DL

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.08DL

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02436

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	000078-78-4	Butane, 2-methyl-	2.48	160	DNJ
02	000930-18-7	Cyclopropane, 1,2-dimethyl-,	3.10	57	DNJ
03	000109-67-1	1-Pentene	3.84	98	DNJ
04	000096-37-7	Cyclopentane, methyl-	5.44	160	DNJ
05	000565-59-3	Pentane, 2,3-dimethyl-	6.63	57	DNJ
06		Unknown-01	10.14	56	DJ
07	003073-66-3	Cyclohexane, 1,1,3-trimethyl-	11.64	75	DNJ
08		Unknown-02	14.41	93	DJ
09		Unknown-03	15.26	69	DJ
10		Unknown-04	15.42	61	DJ
11		Unknown-05	15.53	75	DJ
12		Unknown-06	15.80	78	DJ
13	000767-58-8	Indan, 1-methyl-	16.65	77	DNJ
14	006044-71-9	Dodecane, 6-methyl-	17.39	100	DNJ
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	120	DJ

[1] EPA-designated Registry Number.

10/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT7RE

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.08RE

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02438

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.50	U	UJ
74-87-3	Chloromethane	0.50	U	UJ
75-01-4	Vinyl chloride	0.50	U	
74-83-9	Bromomethane	0.50	U	UJ
75-00-3	Chloroethane	0.50	U	UJ
75-69-4	Trichlorofluoromethane	0.50	U	
75-35-4	1,1-Dichloroethene	0.50	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	
67-64-1	Acetone	5.0	U	
75-15-0	Carbon disulfide	0.50	U	UJ
79-20-9	Methyl acetate	0.50	U	
75-09-2	Methylene chloride	0.50	U	
156-60-5	trans-1,2-Dichloroethene	0.50	U	
1634-04-4	Methyl tert-butyl ether	2.3		J
75-34-3	1,1-Dichloroethane	0.50	U	
156-59-2	cis-1,2-Dichloroethene	0.50	U	
78-93-3	2-Butanone	5.0	U	
74-97-5	Bromochloromethane	0.50	U	
67-66-3	Chloroform	0.50	U	
71-55-6	1,1,1-Trichloroethane	0.50	U	
110-82-7	Cyclohexane	64	E	J
56-23-5	Carbon tetrachloride	0.50	U	
71-43-2	Benzene	68	E	J
107-06-2	1,2-Dichloroethane	0.50	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

Do not report

7/17/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT7RE

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.08RE

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02438

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
79-01-6	Trichloroethene	0.50	U	
108-87-2	Methylcyclohexane	8.7		J
78-87-5	1,2-Dichloropropane	0.50	U	
75-27-4	Bromodichloromethane	0.50	U	
10061-01-5	cis-1,3-Dichloropropene	0.50	U	
108-10-1	4-Methyl-2-pentanone	5.0	U	
108-88-3	Toluene	2.7		J
10061-02-6	trahs-1,3-Dichloropropene	0.50	U	
79-00-5	1,1,2-Trichloroethane	0.50	U	
127-18-4	Tetrachloroethene	0.50	U	
591-78-6	2-Hexanone	5.0	U	
124-48-1	Dibromochloromethane	0.50	U	
106-93-4	1,2-Dibromoethane	0.50	U	
108-90-7	Chlorobenzene	0.50	U	
100-41-4	Ethylbenzene	0.50	U	
95-47-6	o-Xylene	0.95		J
179601-23-1	m,p-Xylene	0.50	U	
100-42-5	Styrene	0.50	U	
75-25-2	Bromoform	0.50	U	UJ
98-82-8	Isopropylbenzene	9.5		J
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	
541-73-1	1,3-Dichlorobenzene	0.50	U	
106-46-7	1,4-Dichlorobenzene	0.50	U	
95-50-1	1,2-Dichlorobenzene	0.50	U	
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	
120-82-1	1,2,4-Trichlorobenzene	0.50	U	
87-61-6	1,2,3-Trichlorobenzene	0.50	U	

Do not report

12/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT7RE

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.08RE

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02438

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	000096-37-7	Cyclopentane, methyl-	5.44	100	NJ
02	000563-79-1	2-Butene, 2,3-dimethyl-	5.60	19	NJ
03		Unknown-01	7.11	27	J
04		Unknown-02	7.25	20	J
05		Unknown-03	8.05	19	J
06		Unknown-04	8.94	30	J
07	000590-66-9	Cyclohexane, 1,1-dimethyl-	10.20	30	NJ
08	000103-65-1	Benzene, propyl-	14.75	22	NJ
09		Unknown-05	15.55	22	J
10	000496-11-7	Indane	16.05	49	NJ
11	007525-62-4	Benzene, 1-ethenyl-3-ethyl-	16.66	37	NJ
12	056253-64-6	Benzene, (2-methyl-1-butenyl)	17.23	19	NJ
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	340	J

[1] EPA-designated Registry Number.

Do not report

7/21/09

0330

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT8

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.09

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02430

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.50	U	UJ
74-87-3	Chloromethane	0.50	U	UJ
75-01-4	Vinyl chloride	0.50	U	
74-83-9	Bromomethane	0.50	U	UJ
75-00-3	Chloroethane	0.50	U	UJ
75-69-4	Trichlorofluoromethane	0.50	U	
75-35-4	1,1-Dichloroethene	0.50	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	
67-64-1	Acetone	11		
75-15-0	Carbon disulfide	0.50	U	UJ
79-20-9	Methyl acetate	0.50	U	
75-09-2	Methylene chloride	0.26	JB	0.50 U
156-60-5	trans-1,2-Dichloroethene	0.50	U	
1634-04-4	Methyl tert-butyl ether	0.50	U	
75-34-3	1,1-Dichloroethane	0.50	U	
156-59-2	cis-1,2-Dichloroethene	5.0		
78-93-3	2-Butanone	5.0	U	
74-97-5	Bromochloromethane	0.50	U	
67-66-3	Chloroform	0.50	U	
71-55-6	1,1,1-Trichloroethane	0.50	U	
110-82-7	Cyclohexane	0.50	U	
56-23-5	Carbon tetrachloride	0.50	U	
71-43-2	Benzene	0.50	U	
107-06-2	1,2-Dichloroethane	0.50	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

JT 8/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT8

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.09

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02430

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

7/17/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT8

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.09

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02430

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.14	4.4	JB
02		Unknown-02	10.54	0.76	J
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

7/21/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT9

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.10

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02431

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
75-71-8	Dichlorodifluoromethane	0.50	U	
74-87-3	Chloromethane	0.50	U	
75-01-4	Vinyl chloride	0.50	U	
74-83-9	Bromomethane	0.50	U	UJ
75-00-3	Chloroethane	0.50	U	
75-69-4	Trichlorofluoromethane	0.50	U	
75-35-4	1,1-Dichloroethene	0.50	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	
67-64-1	Acetone	4.6	J	
75-15-0	Carbon disulfide	0.50	U	
79-20-9	Methyl acetate	0.50	U	
75-09-2	Methylene chloride	0.29	JB	0.50U
156-60-5	trans-1,2-Dichloroethene	0.50	U	
1634-04-4	Methyl tert-butyl ether	0.50	U	
75-34-3	1,1-Dichloroethane	0.50	U	
156-59-2	cis-1,2-Dichloroethene	0.50	U	
78-93-3	2-Butanone	5.0	U	
74-97-5	Bromochloromethane	0.50	U	
67-66-3	Chloroform	0.50	U	
71-55-6	1,1,1-Trichloroethane	0.50	U	
110-82-7	Cyclohexane	0.50	U	
56-23-5	Carbon tetrachloride	0.50	U	
71-43-2	Benzene	0.50	U	
107-06-2	1,2-Dichloroethane	0.50	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

JT 10/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FT9

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.10

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02431

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.25	J
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

JT

JT 8/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FT9

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.10

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02431

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.13	4.7	J
02		Unknown-02	13.90	0.64	J
03		Unknown-03	15.53	0.87	J
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E9667961	Total Alkanes	N/A		

1 EPA-designated Registry Number.

12/7/09

0384

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW0

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.11

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02432

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

JT

Report 1,4-Dioxane for Low-Medium VOA analysis only

JT 12/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW0

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.11

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02432

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U UJ
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

18/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FW0

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.11

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02432

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.14	4.5	JB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

7/8/09

0403

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FX0

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.12

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02433

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	12	B
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	63	
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	1.8	B
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	22	
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

7/21/09

0417

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FX0

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.12

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02433

Level: (TRACE/LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 25.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	2.4	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.53	
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

UJ

7/21/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FX0

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FT0

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: S-2508.12

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: G02433

Level: (TRACE or LOW/MED) TRACE Date Received: 07/17/2009

% Moisture: not dec. _____ Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.14	4.4	JB
02	005973-71-7	Benzaldehyde, 3,4-dimethyl-	18.96	26	NJ
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

12/7/09

REGION VIII
DATA VALIDATION REPORT
ORGANICS

Case/TDD No.	Site Name		Operable Unit
38726 / 0911-04	Block 35 Methylene Chloride Plume		
RPM/OSC Name			
Margaret Williams			
Contractor Laboratory	Contract No.	SDG No.	Laboratory DPO/Region
KAP Technologies, Inc.	EPW05032	H2FW1	

Review Assigned Date: December 2, 2009 Data Validator: Lisa Tyson
Review Completion Date: December 9, 2009 Report Reviewer: Bill Fear

Sample ID	Matrix	Analysis
H2FW1	Soil	CLP – Volatile analyses by SOM01.2
H2FW2		
H2FW3		
H2FW4		
H2FW5		
H2FW6		
H2FW7		
H2FW8		
H2FW9		

DATA QUALITY STATEMENT

( ) Data are ACCEPTABLE according to EPA Functional Guidelines with no qualifiers (flags) added by the reviewer.
( ) Data are UNACCEPTABLE according to EPA Functional Guidelines.
(X) Data are acceptable with QUALIFICATIONS noted in review.

PO Attention Required? Yes _____ No ___X__ If yes, list the items that require attention:

ORGANIC DATA VALIDATION REPORT

REVIEW NARRATIVE SUMMARY

This data package was reviewed according to the EPA document "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," June 2008.

Raw data were reviewed for completeness and transcription accuracy onto the summary forms. Approximately 10-20% of the results reported in each of the samples, calibrations, and QC analyses were recalculated and verified. If problems were identified during the recalculation of results, a more thorough calculation check was performed.

The data package, SDG No. H2FW1 consisted of nine soil samples for CLP volatile organic analyses by SOM01.2.

The following tables list data qualifiers added to the data. (Please see Data Qualifier Definitions, attached to the end of this report.)

Sample Number	Volatile Compound	Qualifier	Reason For Qualification	Review Section
All samples	Toluene	J/UJ	Initial calibration %RSD greater than 20%	4
H2FW1, H2FW2	Bromomethane	UJ	Continuing calibration %D greater than 25%	
All samples	Methylene chloride	U	Method blank contamination	8
H2FW1, H2FW2, H2FW4, H2FW5, H2FW7, H2FW8, H2FW9	Toluene			
H2FW2	Acetone			

1. DELIVERABLES

All deliverables were present as specified in the subcontract.

VOA: Yes_X_ No____

Comments: None.

2. HOLDING TIMES AND PRESERVATION CRITERIA

All holding times and preservation criteria were met.

VOA: Yes_X_ No____

Comments: The samples were analyzed within 14 days from sample collection. The sample coolers were received within the temperature criteria of 4 ± 2 °C. No shipping or receiving problems were noted. Chain-of-custody, summary forms, and raw data were evaluated.

3. BFB PERFORMANCE RESULTS

The bromofluorobenzene (BFB) performance results were within the specified confrol limits. All appropriate BFB results were included.

VOA: Yes_X_ No____

Comments: BFB instrument performance checks were run at the required frequency. Ion abundance criteria were met and were verified from raw data.

4. INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS

Initial instrument calibrations were performed according to method requirements and met the project specified control limits.

VOA: Yes____ No_X_

Comments: Initial calibration standards containing both target compounds and the deuterated monitoring compounds (DMCs) were analyzed at the correct frequency. The average relative response factors (RRFs) for the compounds identified by the Functional Guidelines as poor responders were greater than or equal to 0.01 (0.005 for 1,4-dioxane). The RRFs for all other target compounds were greater than or equal to 0.05. The percent relative standard deviations (%RSDs) of the RRFs were less than or equal to 50% for 1,4-dioxane, 40% for the poor responders and less than or equal to 20% for all other analytes with the exception noted below. Summary forms and raw data were evaluated.

The following table lists the %RSD that was greater than 20% and qualifiers added to the data:

Compound	%RSD	Associated Samples	Qualifiers
Toluene	20.6%	All samples	J/UJ

Continuing instrument calibrations were performed according to method requirements and met project specified control limits.

VOA: Yes___ No_X_

Comments: Continuing calibration standards containing both target compounds and the DMCs were analyzed at the beginning and end of each 12-hour analysis period. The RRFs for the compounds identified by the Functional Guidelines as poor responders were greater than or equal to 0.01 (0.005 for 1,4-dioxane) and the RRFs for all other target compounds were greater than or equal to 0.05. The opening standard percent differences (%Ds) of the RRFs were less than or equal to 50% for 1,4-dioxane, 40% for the poor responders and less than or equal to 25% for all other analytes with the exception noted below. All %Ds for the closing standards were less than 50% and all RRFs with the exception of 1,4-dioxane were greater than 0.01. Summary forms and raw data were evaluated.

The following table lists the %Ds that were greater than 25% and the qualifiers added to the data:

Compound	%D	Associated Samples	Qualifiers
Bromomethane	29.7%	H2FW1, H2FW2	UJ

5. DEUTERATED MONITORING COMPOUNDS

Deuterated monitoring compound (DMC) recovery analysis was performed according to method requirements and results met specified control limits.

VOA: Yes_X_ No____

Comments: DMCs were added to all samples and blanks. All DMC percent recoveries were within the QC limits. Summary forms and raw data were evaluated.

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses were performed according to method requirements and results met recommended recovery and precision limits.

VOA: Yes___ No_X_

Comments: Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on sample H2FW2. The percent recoveries and the relative percent differences (RPDs) were within the appropriate QC limits, with one exception. The percent recovery for trichloroethene in the matrix spike at 61% was below laboratory control limits of 62-137%. No qualification is taken based solely on MS/MSD data. Summary forms and raw data were evaluated.

7. INTERNAL STANDARD AREA

Internal standard area analysis was performed according to method requirements and results met specified control limits.

VOA: Yes_X_ No____

Comments: Internal standard area counts did not vary by more than a factor of two from the associated 12-hour calibration standard. The internal standard retention times did not vary more than ± 30 seconds from the retention time of the associated 12-hour calibration standards. Summary forms and raw data were evaluated.

8. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to method requirements and results met specified limits.

VOA: Yes___ No_X_

Comments: Method blank analyses were performed after the calibration standards and once for every 12-hour time period. A storage blank (VHBLK01) was also analyzed. Summary forms and raw data were evaluated.

Contamination was detected in the method blanks as summarized in the following table. Quantitation limits in the associated samples were raised in accordance with the rules set forth in the "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," June 2008.

Blank Target Compounds

Blank ID	Contaminant	Concentration Found in Blank (ug/Kg)	Associated Samples	Concentration Found in Sample (ug/Kg)	Qualifier/ Adjustment
VBLK30	Acetone	5.8	H2FW2	24	U
	Methylene chloride	3.1	H2FW1 H2FW2	<CRDL	6.4 U 5.7 U
	Toluene	3.4	H2FW1 H2FW2		6.4 U 5.7 U

Blank ID	Contaminant	Concentration Found in Blank (ug/Kg)	Associated Samples	Concentration Found in Sample (ug/Kg)	Qualifier/ Adjustment
VBLK33	Methylene chloride	6.9	H2FW3 H2FW4 H2FW5 H2FW6 H2FW7 H2FW8 H2FW9	22 23 9.4 11 16 12 13	U
	Toluene	2.8	H2FW4 H2FW5 H2FW7 H2FW8 H2FW9	<CRDL	5.9 U 5.9 U 5.9 U 6.1 U 6.0 U

The storage blank also reported acetone at 2.7 ug/Kg, methylene chloride at 6.9 ug/Kg, and toluene at 3.3 ug/Kg. No additional qualification was necessary because the sample results were either already qualified non-detect due to method blank contamination or the storage blank result was ultimately qualified as non-detect due to method blank contamination.

9. SAMPLE RESULTS

The sample results were reviewed and all compound identifications were acceptable and met contract requirements.

VOA: Yes_X_ No____

Comments: Sample relative retention times (RRTs) were within ± 0.06 RRT units of the standard RRT. Ions present in the standard mass spectrum at a relative intensity greater than 10% were present in the sample spectmm. Relative intensities of ions agreed within ±20% between standard and sample spectra. All samples results and CRQL were correctly calculated.

Tentatively identified compounds (TICs) were qualitatively assessed by a mass spectral library search. No qualification was applied to the TICs.

10. Additional Comments or Problems/Resolutions Not Addressed Above

VOA: Yes____ No_X_

Comments: None.

ORGANIC DATA QUALITY ASSURANCE REVIEW

Region VIII

DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

GENERAL QUALIFIERS for use with both **INORGANIC** and **ORGANIC DATA**

R	-	Reported value is "rejected." Resampling or reanalysis may be necessary to verify the presence or absence of the compound.
J	-	The associated numerical value is an estimated quantity because the Quality Control criteria were not met.
U J	-	The reported quantitation limit is estimated because Quality Control criteria were not met. Element or compound was not detected.
N J	-	Estimated value of a tentatively identified compound. (Identified with a **CAS** number.) **ORGANICS** analysis only.
U	-	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW1

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.01

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21879

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 22 Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
75-71-8	Dichlorodifluoromethane	6.4	U	
74-87-3	Chloromethane	6.4	U	
75-01-4	Vinyl chloride	6.4	U	
74-83-9	Bromomethane	6.4	U	UJ
75-00-3	Chloroethane	6.4	U	
75-69-4	Trichlorofluoromethane	6.4	U	
75-35-4	1,1-Dichloroethene	6.4	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.4	U	
67-64-1	Acetone	13	U	
75-15-0	Carbon disulfide	6.4	U	
79-20-9	Methyl acetate	6.4	U	
75-09-2	Methylene chloride	5.2	JB	6.4 U
156-60-5	trans-1,2-Dichloroethene	6.4	U	
1634-04-4	Methyl tert-butyl ether	6.4	U	
75-34-3	1,1-Dichloroethane	6.4	U	
156-59-2	cis-1,2-Dichloroethene	6.4	U	
78-93-3	2-Butanone	13	U	
74-97-5	Bromochloromethane	6.4	U	
67-66-3	Chloroform	6.4	U	
71-55-6	1,1,1-Trichloroethane	6.4	U	
110-82-7	Cyclohexane	6.4	U	
56-23-5	Carbon tetrachloride	6.4	U	
71-43-2	Benzene	6.4	U	
107-06-2	1,2-Dichloroethane	6.4	U	
123-91-1	1,4-Dioxane	130	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

A 10/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW1

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.01

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21879

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 22 Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-01-6	Trichloroethene	6.4	U
108-87-2	Methylcyclohexane	6.4	U
78-87-5	1,2-Dichloropropane	6.4	U
75-27-4	Bromodichloromethane	6.4	U
10061-01-5	cis-1,3-Dichloropropene	6.4	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	2.3	JB
10061-02-6	trans-1,3-Dichloropropene	6.4	U
79-00-5	1,1,2-Trichloroethane	6.4	U
127-18-4	Tetrachloroethene	6.4	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.4	U
106-93-4	1,2-Dibromoethane	6.4	U
108-90-7	Chlorobenzene	6.4	U
100-41-4	Ethylbenzene	6.4	U
95-47-6	o-Xylene	6.4	U
179601-23-1	m,p-Xylene	6.4	U
100-42-5	Styrene	6.4	U
75-25-2	Bromoform	6.4	U
98-82-8	Isopropylbenzene	6.4	U
79-34-5	1,1,2,2-Tetrachloroethane	6.4	U
541-73-1	1,3-Dichlorobenzene	6.4	U
106-46-7	1,4-Dichlorobenzene	6.4	U
95-50-1	1,2-Dichlorobenzene	6.4	U
96-12-8	1,2-Dibromo-3-chloropropane	6.4	U
120-82-1	1,2,4-Trichlorobenzene	6.4	U
87-61-6	1,2,3-Trichlorobenzene	6.4	U

6.4 UJ

JT 12/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FW1

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.01

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21879

Level: (TRACE or LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 22 Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	11.00	93	JB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

7/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW2

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.02

Sample wt/vol: 5.100 (g/mL) G Lab File ID: A21880

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 14 Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
75-71-8	Dichlorodifluoromethane	5.7	U	
74-87-3	Chloromethane	5.7	U	
75-01-4	Vinyl chloride	5.7	U	
74-83-9	Bromomethane	5.7	U	UJ
75-00-3	Chloroethane	5.7	U	
75-69-4	Trichlorofluoromethane	5.7	U	
75-35-4	1,1-Dichloroethene	5.7	U	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.7	U	
67-64-1	Acetone	24	B	U
75-15-0	Carbon disulfide	5.7	U	
79-20-9	Methyl acetate	5.7	U	
75-09-2	Methylene chloride	3.5	JB	5.7U
156-60-5	trans-1,2-Dichloroethene	5.7	U	
1634-04-4	Methyl tert-butyl ether	5.7	U	
75-34-3	1,1-Dichloroethane	5.7	U	
156-59-2	cis-1,2-Dichloroethene	5.7	U	
78-93-3	2-Butanone	11	U	
74-97-5	Bromochloromethane	5.7	U	
67-66-3	Chloroform	5.7	U	
71-55-6	1,1,1-Trichloroethane	5.7	U	
110-82-7	Cyclohexane	5.7	U	
56-23-5	Carbon tetrachloride	5.7	U	
71-43-2	Benzene	5.7	U	
107-06-2	1,2-Dichloroethane	5.7	U	
123-91-1	1,4-Dioxane	110	U	

Report 1,4-Dioxane for Low-Medium VOA analysis only

VT 12/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW2

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.02

Sample wt/vol: 5.100 (g/mL) G Lab File ID: A21880

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 14 Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-01-6	Trichloroethene	5.7	U
108-87-2	Methylcyclohexane	5.7	U
78-87-5	1,2-Dichloropropane	5.7	U
75-27-4	Bromodichloromethane	5.7	U
10061-01-5	cis-1,3-Dichloropropene	5.7	U
108-10-1	4-Methyl-2-pentanone	11	U
108-88-3	Toluene	1.6	JB
10061-02-6	trans-1,3-Dichloropropene	5.7	U
79-00-5	1,1,2-Trichloroethane	5.7	U
127-18-4	Tetrachloroethene	5.7	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	5.7	U
106-93-4	1,2-Dibromoethane	5.7	U
108-90-7	Chlorobenzene	5.7	U
100-41-4	Ethylbenzene	5.7	U
95-47-6	o-Xylene	5.7	U
179601-23-1	m,p-Xylene	5.7	U
100-42-5	Styrene	5.7	U
75-25-2	Bromoform	5.7	U
98-82-8	Isopropylbenzene	5.7	U
79-34-5	1,1,2,2-Tetrachloroethane	5.7	U
541-73-1	1,3-Dichlorobenzene	5.7	U
106-46-7	1,4-Dichlorobenzene	5.7	U
95-50-1	1,2-Dichlorobenzene	5.7	U
96-12-8	1,2-Dibromo-3-chloropropane	5.7	U
120-82-1	1,2,4-Trichlorobenzene	5.7	U
87-61-6	1,2,3-Trichlorobenzene	5.7	U

5.7 UJ

UJ 8/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FW2

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.02

Sample wt/vol: 5.100 (g/mL) G Lab File ID: A21880

Level: (TRACE or LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 14 Date Analyzed: 07/20/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	9.92	16	J
02		Unknown-02	11.00	77	J
03		Unknown-03	12.97	19	J
04		Unknown-04	14.54	20	J
05		Unknown-05	14.77	16	J
06		Unknown-06	15.39	14	J
07		Unknown-07	15.56	27	J
08		Unknown-08	17.11	14	J
09	000105-05-5	Benzene, 1,4-diethyl-	18.28	19	NJ
10	000141-93-5	Benzene, 1,3-diethyl-	18.40	13	NJ
11	000527-84-4	Benzene, 1-methyl-2-(1-methyl	19.16	25	NJ
12	000095-93-2	Benzene, 1,2,4,5-tetramethyl-	19.93	44	NJ
13	001595-16-0	Benzene, 1-methyl-4-(1-methyl	20.08	18	NJ
14	056253-64-6	Benzene, (2-methyl-1-butenyl)	20.40	14	NJ
15	002049-95-8	Benzene, (1,1-dimethylpropyl)	20.92	24	NJ
16	017059-48-2	IH-Indene, 2,3-dihydro-1,6-di	21.29	22	NJ
17		Unknown-09	21.43	24	J
18	004920-99-4	Benzene, 1-ethyl-3-(1-methyle	21.66	17	NJ
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	60	J

[1] EPA-designated Registry Number.

JT 10/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW3

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.03

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21905

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 22 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.4	U
74-87-3	Chloromethane	6.4	U
75-01-4	Vinyl chloride	6.4	U
74-83-9	Bromomethane	6.4	U
75-00-3	Chloroethane	6.4	U
75-69-4	Trichlorofluoromethane	6.4	U
75-35-4	1,1-Dichloroethene	6.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.4	U
67-64-1	Acetone	13	U
75-15-0	Carbon disulfide	6.4	U
79-20-9	Methyl acetate	6.4	U
75-09-2	Methylene chloride	22	B
156-60-5	trans-1,2-Dichloroethene	6.4	U
1634-04-4	Methyl tert-butyl ether	6.4	U
75-34-3	1,1-Dichloroethane	6.4	U
156-59-2	cis-1,2-Dichloroethene	6.4	U
78-93-3	2-Butanone	13	U
74-97-5	Bromochloromethane	6.4	U
67-66-3	Chloroform	6.4	U
71-55-6	1,1,1-Trichloroethane	6.4	U
110-82-7	Cyclohexane	6.4	U
56-23-5	Carbon tetrachloride	6.4	U
71-43-2	Benzene	6.4	U
107-06-2	1,2-Dichloroethane	6.4	U
123-91-1	1,4-Dioxane	130	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

10/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW3

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.03

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21905

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 22 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-01-6	Trichloroethene	6.4	U
108-87-2	Methylcyclohexane	6.4	U
78-87-5	1,2-Dichloropropane	6.4	U
75-27-4	Bromodichloromethane	6.4	U
10061-01-5	cis-1,3-Dichloropropene	6.4	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	6.4	U UJ
10061-02-6	trans-1,3-Dichloropropene	6.4	U
79-00-5	1,1,2-Trichloroethane	6.4	U
127-18-4	Tetrachloroethene	6.4	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.4	U
106-93-4	1,2-Dibromoethane	6.4	U
108-90-7	Chlorobenzene	6.4	U
100-41-4	Ethylbenzene	6.4	U
95-47-6	o-Xylene	6.4	U
179601-23-1	m,p-Xylene	6.4	U
100-42-5	Styrene	6.4	U
75-25-2	Bromoform	6.4	U
98-82-8	Isopropylbenzene	6.4	U
79-34-5	1,1,2,2-Tetrachloroethane	6.4	U
541-73-1	1,3-Dichlorobenzene	6.4	U
106-46-7	1,4-Dichlorobenzene	6.4	U
95-50-1	1,2-Dichlorobenzene	6.4	U
96-12-8	1,2-Dibromo-3-chloropropane	6.4	U
120-82-1	1,2,4-Trichlorobenzene	6.4	U
87-61-6	1,2,3-Trichlorobenzene	6.4	U

JT 12/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FW3

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.03

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21905

Level: (TRACE or LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 22 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	11.01	81	JB
02	050876-32-9	Cyclohexane, 1,1,3,5-tetramet	14.37	38	NJ
03		Unknown-02	14.79	30	J
04		Unknown-03	15.53	36	J
05		Unknown-04	16.00	41	J
06		Unknown-05	16.00	31	J
07		Unknown-06	16.06	43	J
08		Unknown-07	16.23	48	J
09		Unknown-08	16.37	47	J
10		Unknown-09	16.38	86	J
11		Unknown-10	16.41	42	J
12		Unknown-11	16.76	39	J
13		Unknown-12	16.79	73	J
14		Unknown-13	16.89	76	J
15		Unknown-14	16.89	70	J
16		Unknown-15	16.90	42	J
17		Unknown-16	17.20	72	J
18		Unknown-17	17.21	35	J
19		Unknown-18	17.26	36	J
20		Unknown-19	17.44	32	J
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

JT 10/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW4

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.04

Sample wt/vol: 5.200 (g/mL) G Lab File ID: A21906

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 18 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-01-6	Trichloroethene	5.9	U
108-87-2	Methylcyclohexane	5.9	U
78-87-5	1,2-Dichloropropane	5.9	U
75-27-4	Bromodichloromethane	5.9	U
10061-01-5	cis-1,3-Dichloropropene	5.9	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	2.7	JB
10061-02-6	trans-1,3-Dichloropropene	5.9	U
79-00-5	1,1,2-Trichloroethane	5.9	U
127-18-4	Tetrachloroethene	5.9	U
591-78-6	2-Hexanone	12	U
124-48-1	Dibromochloromethane	5.9	U
106-93-4	1,2-Dibromoethane	5.9	U
108-90-7	Chlorobenzene	5.9	U
100-41-4	Ethylbenzene	5.9	U
95-47-6	o-Xylene	5.9	U
179601-23-1	m,p-Xylene	5.9	U
100-42-5	Styrene	5.9	U
75-25-2	Bromoform	5.9	U
98-82-8	Isopropylbenzene	5.9	U
79-34-5	1,1,2,2-Tetrachloroethane	5.9	U
541-73-1	1,3-Dichlorobenzene	5.9	U
106-46-7	1,4-Dichlorobenzene	5.9	U
95-50-1	1,2-Dichlorobenzene	5.9	U
96-12-8	1,2-Dibromo-3-chloropropane	5.9	U
120-82-1	1,2,4-Trichlorobenzene	5.9	U
87-61-6	1,2,3-Trichlorobenzene	5.9	U

5.9UJ

J 10/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FW4

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.04

Sample wt/vol: 5.200 (g/mL) G Lab File ID: A21906

Level: (TRACE or LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 18 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	3.04	7.3	J
02	000110-54-3	Hexane	5.21	12	NJ
03		Unknown-02	11.01	79	J
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E9667961	Total Alkanes	N/A		

1 EPA-designated Registry Number.

12/2/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW4

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.04

Sample wt/vol: 5.200 (g/mL) G Lab File ID: A21906

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 18 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.9	U
74-87-3	Chloromethane	5.9	U
75-01-4	Vinyl chloride	5.9	U
74-83-9	Bromomethane	5.9	U
75-00-3	Chloroethane	5.9	U
75-69-4	Trichlorofluoromethane	5.9	U
75-35-4	1,1-Dichloroethene	5.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.9	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	5.9	U
79-20-9	Methyl acetate	5.9	U
75-09-2	Methylene chloride	23	B
156-60-5	trans-1,2-Dichloroethene	5.9	U
1634-04-4	Methyl tert-butyl ether	5.9	U
75-34-3	1,1-Dichloroethane	5.9	U
156-59-2	cis-1,2-Dichloroethene	5.9	U
78-93-3	2-Butanone	12	U
74-97-5	Bromochloromethane	5.9	U
67-66-3	Chloroform	5.9	U
71-55-6	1,1,1-Trichloroethane	5.9	U
110-82-7	Cyclohexane	5.9	U
56-23-5	Carbon tetrachloride	5.9	U
71-43-2	Benzene	5.9	U
107-06-2	1,2-Dichloroethane	5.9	U
123-91-1	1,4-Dioxane	120	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

JT 10/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW5

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.05

Sample wt/vol: 5.400 (g/mL) G Lab File ID: A21907

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 22 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.9	U
74-87-3	Chloromethane	5.9	U
75-01-4	Vinyl chloride	5.9	U
74-83-9	Bromomethane	5.9	U
75-00-3	Chloroethane	5.9	U
75-69-4	Trichlorofluoromethane	5.9	U
75-35-4	1,1-Dichloroethene	5.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.9	U
67-64-1	Acetone	9.0	J
75-15-0	Carbon disulfide	5.9	U
79-20-9	Methyl acetate	5.9	U
75-09-2	Methylene chloride	9.4	B U
156-60-5	trans-1,2-Dichloroethene	5.9	U
1634-04-4	Methyl tert-butyl ether	5.9	U
75-34-3	1,1-Dichloroethane	5.9	U
156-59-2	cis-1,2-Dichloroethene	5.9	U
78-93-3	2-Butanone	12	U
74-97-5	Bromochloromethane	5.9	U
67-66-3	Chloroform	5.9	U
71-55-6	1,1,1-Trichloroethane	5.9	U
110-82-7	Cyclohexane	5.9	U
56-23-5	Carbon tetrachloride	5.9	U
71-43-2	Benzene	5.9	U
107-06-2	1,2-Dichloroethane	5.9	U
123-91-1	1,4-Dioxane	120	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

VT 12/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW5

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.05

Sample wt/vol: 5.400 (g/mL) G Lab File ID: A21907

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 22 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-01-6	Trichloroethene	5.9	U
108-87-2	Methylcyclohexane	5.9	U
78-87-5	1,2-Dichloropropane	5.9	U
75-27-4	Bromodichloromethane	5.9	U
10061-01-5	cis-1,3-Dichloropropene	5.9	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	2.0	JB
10061-02-6	trans-1,3-Dichloropropene	5.9	U
79-00-5	1,1,2-Trichloroethane	5.9	U
127-18-4	Tetrachloroethene	5.9	U
591-78-6	2-Hexanone	12	U
124-48-1	Dibromochloromethane	5.9	U
106-93-4	1,2-Dibromoethane	5.9	U
108-90-7	Chlorobenzene	5.9	U
100-41-4	Ethylbenzene	5.9	U
95-47-6	o-Xylene	5.9	U
179601-23-1	m,p-Xylene	5.9	U
100-42-5	Styrene	5.9	U
75-25-2	Bromoform	5.9	U
98-82-8	Isopropylbenzene	5.9	U
79-34-5	1,1,2,2-Tetrachloroethane	5.9	U
541-73-1	1,3-Dichlorobenzene	5.9	U
106-46-7	1,4-Dichlorobenzene	5.9	U
95-50-1	1,2-Dichlorobenzene	5.9	U
96-12-8	1,2-Dibromo-3-chloropropane	5.9	U
120-82-1	1,2,4-Trichlorobenzene	5.9	U
87-61-6	1,2,3-Trichlorobenzene	5.9	U

5.9 UJ

VT 10/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FW5

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.05

Sample wt/vol: 5.400 (g/mL) G Lab File ID: A21907

Level: (TRACE or LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 22 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	11.01	83	JB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

JT 12/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW6

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.06

Sample wt/vol: 5.800 (g/mL) G Lab File ID: A21908

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 20 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.4	U
74-87-3	Chloromethane	5.4	U
75-01-4	Vinyl chloride	5.4	U
74-83-9	Bromomethane	5.4	U
75-00-3	Chloroethane	5.4	U
75-69-4	Trichlorofluoromethane	5.4	U
75-35-4	1,I-Dichloroethene	5.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.4	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	5.4	U
79-20-9	Methyl acetate	5.4	U
75-09-2	Methylene chloride	11	B
156-60-5	trans-1,2-Dichloroethene	5.4	U
1634-04-4	Methyl tert-butyl ether	5.4	U
75-34-3	1,1-Dichloroethane	5.4	U
156-59-2	cis-1,2-Dichloroethene	5.4	U
78-93-3	2-Butanone	11	U
74-97-5	Bromochloromethane	5.4	U
67-66-3	Chloroform	5.4	U
71-55-6	1,1,1-Trichloroethane	5.4	U
110-82-7	Cyclohexane	5.4	U
56-23-5	Carbon tetrachloride	5.4	U
71-43-2	Benzene	5.4	U
107-06-2	1,2-Dichloroethane	5.4	U
123-91-1	1,4-Dioxane	110	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

11/7/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW6

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.06

Sample wt/vol: 5.800 (g/mL) G Lab File ID: A21908

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 20 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-01-6	Trichloroethene	5.4	U
108-87-2	Methylcyclohexane	5.4	U
78-87-5	1,2-Dichloropropane	5.4	U
75-27-4	Bromodichloromethane	5.4	U
10061-01-5	cis-1,3-Dichloropropene	5.4	U
108-10-1	4-Methyl-2-pentanone	11	U
108-88-3	Toluene	5.4	U
10061-02-6	trans-1,3-Dichloropropene	5.4	U
79-00-5	1,1,2-Trichloroethane	5.4	U
127-18-4	Tetrachloroethene	5.4	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	5.4	U
106-93-4	1,2-Dibromoethane	5.4	U
108-90-7	Chlorobenzene	5.4	U
100-41-4	Ethylbenzene	5.4	U
95-47-6	o-Xylene	5.4	U
179601-23-1	m,p-Xylene	5.4	U
100-42-5	Styrene	5.4	U
75-25-2	Bromoform	5.4	U
98-82-8	Isopropylbenzene	5.4	U
79-34-5	1,1,2,2-Tetrachloroethane	5.4	U
541-73-1	1,3-Dichlorobenzene	5.4	U
106-46-7	1,4-Dichlorobenzene	5.4	U
95-50-1	1,2-Dichlorobenzene	5.4	U
96-12-8	1,2-Dibromo-3-chloropropane	5.4	U
120-82-1	1,2,4-Trichlorobenzene	5.4	U
87-61-6	1,2,3-Trichlorobenzene	5.4	U

UJ

JT 11/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FW6

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.06

Sample wt/vol: 5.800 (g/mL) G Lab File ID: A21908

Level: (TRACE or LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 20 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	10.45	22	J
02		Unknown-02	11.00	48	J
03		Unknown-03	11.40	20	J
04		Unknown-04	14.33	23	J
05		Unknown-05	15.01	31	J
06		Unknown-06	15.22	21	J
07		Unknown-07	15.57	46	J
08		Unknown-08	15.73	74	J
09		Unknown-09	15.83	24	J
10		Unknown-10	16.98	45	J
11		Unknown-11	17.23	42	J
12		Unknown-12	17.41	22	J
13		Unknown-13	17.42	61	J
14		Unknown-14	17.85	37	J
15		Unknown-15	17.89	48	J
16		Unknown-16	18.13	20	J
17		Unknown-17	18.22	22	J
18		Unknown-18	18.54	21	J
19		Unknown-19	18.63	21	J
20		Unknown-20	18.86	23	J
21		Unknown-21	19.09	22	J
22		Unknown-22	19.10	31	J
23	002958-76-1	Naphthalene, decahydro-2-meth	19.28	22	NJ
24	074645-98-0	Dodecane, 2,7,10-trimethyl-	20.06	41	NJ
25		Unknown-23	20.27	29	J
26	020836-11-7	IH-Indene,2,3-dihydro-2,2-dim	20.40	25	NJ
27	017301-23-4	Undecane, 2,6-dimethyl-	20.78	84	NJ
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	96	J

[1] EPA-designated Registry Number.

7/22/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW7

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.07

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21909

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 15 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.9	U
74-87-3	Chloromethane	5.9	U
75-01-4	Vinyl chloride	5.9	U
74-83-9	Bromomethane	5.9	U
75-00-3	Chloroethane	5.9	U
75-69-4	Trichlorofluoromethane	5.9	U
75-35-4	1,1-Dichloroethene	5.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.9	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	5.9	U
79-20-9	Methyl acetate	5.9	U
75-09-2	Methylene chloride	16	B
156-60-5	trans-1,2-Dichloroethene	5.9	U
1634-04-4	Methyl tert-butyl ether	5.9	U
75-34-3	1,1-Dichloroethane	5.9	U
156-59-2	cis-1,2-Dichloroethene	5.9	U
78-93-3	2-Butanone	12	U
74-97-5	Bromochloromethane	5.9	U
67-66-3	Chloroform	5.9	U
71-55-6	1,1,1-Trichloroethane	5.9	U
110-82-7	Cyclohexane	5.9	U
56-23-5	Carbon tetrachloride	5.9	U
71-43-2	Benzene	5.9	U
107-06-2	1,2-Dichloroethane	5.9	U
123-91-1	1,4-Dioxane	120	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

JT 11/7/07

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW7

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.07

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21909

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 15 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-01-6	Trichloroethene	5.9	U
108-87-2	Methylcyclohexane	5.9	U
78-87-5	1,2-Dichloropropane	5.9	U
75-27-4	Bromodichloromethane	5.9	U
10061-01-5	cis-1,3-Dichloropropene	5.9	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	2.2	JB
10061-02-6	trans-1,3-Dichloropropene	5.9	U
79-00-5	1,1,2-Trichloroethane	5.9	U
127-18-4	Tetrachloroethene	5.9	U
591-78-6	2-Hexanone	12	U
124-48-1	Dibromochloromethane	5.9	U
106-93-4	1,2-Dibromoethane	5.9	U
108-90-7	Chlorobenzene	5.9	U
100-41-4	Ethylbenzene	5.9	U
95-47-6	o-Xylene	5.9	U
179601-23-1	m,p-Xylene	5.9	U
100-42-5	Styrene	5.9	U
75-25-2	Bromoform	5.9	U
98-82-8	Isopropylbenzene	5.9	U
79-34-5	1,1,2,2-Tetrachloroethane	5.9	U
541-73-1	1,3-Dichlorobenzene	5.9	U
106-46-7	1,4-Dichlorobenzene	5.9	U
95-50-1	1,2-Dichlorobenzene	5.9	U
96-12-8	1,2-Dibromo-3-chloropropane	5.9	U
120-82-1	1,2,4-Trichlorobenzene	5.9	U
87-61-6	1,2,3-Trichlorobenzene	5.9	U

5.9 U

7/27/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FW7

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.07

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21909

Level: (TRACE or LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 15 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	3.05	6.1	J
02		Unknown-02	11.01	80	J
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	15	J

[1] EPA-designated Registry Number.

10/7/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW8

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.08

Sample wt/vol: 5.100 (g/mL) G Lab File ID: A21910

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 19 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.1	U
74-87-3	Chloromethane	6.1	U
75-01-4	Vinyl chloride	6.1	U
74-83-9	Bromomethane	6.1	U
75-00-3	Chloroethane	6.1	U
75-69-4	Trichlorofluoromethane	6.1	U
75-35-4	1,1-Dichloroethene	6.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.1	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6.1	U
79-20-9	Methyl acetate	6.1	U
75-09-2	Methylene chloride	12	B U
156-60-5	trans-1,2-Dichloroethene	6.1	U
1634-04-4	Methyl tert-butyl ether	6.1	U
75-34-3	1,1-Dichloroethane	6.1	U
156-59-2	cis-1,2-Dichloroethene	6.1	U
78-93-3	2-Butanone	12	U
74-97-5	Bromochloromethane	6.1	U
67-66-3	Chloroform	6.1	U
71-55-6	1,1,1-Trichloroethane	6.1	U
110-82-7	Cyclohexane	6.1	U
56-23-5	Carbon tetrachloride	6.1	U
71-43-2	Benzene	6.1	U
107-06-2	1,2-Dichloroethane	6.1	U
123-91-1	1,4-Dioxane	120	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

7/17/09

IB - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW8

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.08

Sample wt/vol: 5.100 (g/mL) G Lab File ID: A21910

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 19 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-01-6	Trichloroethene	6.1	U
108-87-2	Methylcyclohexane	6.1	U
78-87-5	1,2-Dichloropropane	6.1	U
75-27-4	Bromodichloromethane	6.1	U
10061-01-5	cis-1,3-Dichloropropene	6.1	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	4.1	JB
10061-02-6	trans-1,3-Dichlpropropene	6.1	U
79-00-5	1,1,2-Trichloroethane	6.1	U
127-18-4	Tetrachloroethene	6.1	U
591-78-6	2-Hexanone	12	U
124-48-1	Dibromochloromethane	6.1	U
106-93-4	1,2-Dibromoethane	6.1	U
108-90-7	Chlorobenzene	6.1	U
100-41-4	Ethylbenzene	6.1	U
95-47-6	o-Xylene	6.1	U
179601-23-1	m,p-Xylene	3.3	J
100-42-5	Styrene	6.1	U
75-25-2	Bromoform	6.1	U
98-82-8	Isopropylbenzene	6.1	U
79-34-5	1,1,2,2-Tetrachloroethane	6.1	U
541-73-1	1,3-Dichlorobenzene	6.1	U
106-46-7	1,4-Dichlorobenzene	6.1	U
95-50-1	1,2-Dichlorobenzene	6.1	U
96-12-8	1,2-Dibromo-3-chloropropane	6.1	U
120-82-1	1,2,4-Trichlorobenzene	6.1	U
87-61-6	1,2,3-Trichlorobenzene	6.1	U

6.1 UJ

7/21/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FW8

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.08

Sample wt/vol: 5.100 (g/mL) G Lab File ID: A21910

Level: (TRACE or LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 19 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	11.01	84	JB
02	006783-92-2	Cyclohexane, 1,1,2,3-tetramet	15.73	21	NJ
03	002847-72-5	Decane, 4-methyl-	16.84	14	NJ
04		Unknown-02	17.11	6.9	J
05		Unknown-03	17.23	8.6	J
06	081983-71-3	Cyclohexane, 1,1-dimethyl-2-p	17.82	6.8	NJ
07	000099-87-6	Benzene, 1-methyl-4-(1-methyl	18.20	8.0	NJ
08		Unknown-04	22.79	6.5	J
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	6.9	J

[1] EPA-designated Registry Number.

7/21/09

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H2FW9

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.09

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21911

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 17 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.0	U
74-87-3	Chloromethane	6.0	U
75-01-4	Vinyl chloride	6.0	U
74-83-9	Bromomethane	6.0	U
75-00-3	Chloroethane	6.0	U
75-69-4	Trichlorofluoromethane	6.0	U
75-35-4	1,1-Dichloroethene	6.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.0	U
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6.0	U
79-20-9	Methyl acetate	6.0	U
75-09-2	Methylene chloride	13	B
156-60-5	trans-1,2-Dichloroethene	6.0	U
1634-04-4	Methyl tert-butyl ether	6.0	U
75-34-3	1,1-Dichloroethane	6.0	U
156-59-2	cis-1,2-Dichloroethene	6.0	U
78-93-3	2-Butanone	12	U
74-97-5	Bromochloromethane	6.0	U
67-66-3	Chloroform	6.0	U
71-55-6	1,1,1-Trichloroethane	6.0	U
110-82-7	Cyclohexane	6.0	U
56-23-5	Carbon tetrachloride	6.0	U
71-43-2	Benzene	6.0	U
107-06-2	1,2-Dichloroethane	6.0	U
123-91-1	1,4-Dioxane	120	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

10/7/09

IB - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H2FW9

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.09

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21911

Level: (TRACE/LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 17 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

Purge Volume: 10.0 (mL)

CAS No.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
79-01-6	Trichloroethene	6.0	U
108-87-2	Methylcyclohexane	6.0	U
78-87-5	1,2-Dichloropropane	6.0	U
75-27-4	Bromodichloromethane	6.0	U
10061-01-5	cis-1,3-Dichloropropene	6.0	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	2.1	JB
10061-02-6	trans-1,3-Dichloropropene	6.0	U
79-00-5	1,1,2-Trichloroethane	6.0	U
127-18-4	Tetrachloroethene	6.0	U
591-78-6	2-Hexanone	12	U
124-48-1	Dibromochloromethane	6.0	U
106-93-4	1,2-Dibromoethane	6.0	U
108-90-7	Chlorobenzene	6.0	U
100-41-4	Ethylbenzene	6.0	U
95-47-6	o-Xylene	6.0	U
179601-23-1	m,p-Xylene	6.0	U
100-42-5	Styrene	6.0	U
75-25-2	Bromoform	6.0	U
98-82-8	Isopropylbenzene	6.0	U
79-34-5	1,1,2,2-Tetrachloroethane	6.0	U
541-73-1	1,3-Dichlorobenzene	6.0	U
106-46-7	1,4-Dichlorobenzene	6.0	U
95-50-1	1,2-Dichlorobenzene	6.0	U
96-12-8	1,2-Dibromo-3-chloropropane	6.0	U
120-82-1	1,2,4-Trichlorobenzene	6.0	U
87-61-6	1,2,3-Trichlorobenzene	6.0	U

6.0 UJ

VT 8/7/09

IJ - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H2FW9

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: S-2509.09

Sample wt/vol: 5.000 (g/mL) G Lab File ID: A21911

Level: (TRACE or LOW/MED) LOW Date Received: 07/17/2009

% Moisture: not dec. 17 Date Analyzed: 07/21/2009

GC Column: RTX-VMS ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	11.01	88	JB
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	33	J

[1] EPA-designated Registry Number.

JT 10/7/09

HOLDING TIMES

Method #: 8260C

Client & Batch #: H2FW1

Validator/Date: L. Tyson

Reviewer/Date:

include samples, dilutions & reanalyses

#	SAMPLE NUMBER (per COC)	(If Applicable) COC # = Form I Y/N	(If Applicable) SAMPLE PRE-SERVED Y/N	TEMP. 4°C (±2°C) Y/N	CONC. LEVEL/ MATRIX	DATE COLLECTED	Extractables DATE EXTRACTED	DATE ANALYZED	Extractables EXT. DATE - COLL. DATE	Extractables ANAL. DATE - EXT. DATE	ANAL. DATE - COLL. DATE	Action Taken VOA Aromatic J(+) UJ (U)	Action Taken J ALL	Action Taken J (+) R (U)	COMMENTS (ANY PROBLEMS ESP. WITH SHIPPING, RECEIPT & SAMPLING CONDITION)
1	H2FW1	Y	ice	1.9°C	S	7/15/09	NA	7/20			5				GL
2	2					7/14/09		〃			6				
3	3					7/14/09		7/21			7				
4	4					7/15/09					6				
5	5					7/14/09					7				
6	6					7/14/09					〃				
7	7					7/15/09					6				
8	8					7/15/09					〃				
9	9	〃	〃	〃	〃	7/15/09	〃	〃			〃				
10															
11															
12															
13															
14															
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17															
18															
19															
20															
21															
22															
23															
24															
25															

For all worksheets: (1) If a particular category is "Not Applicable," denote with N/A (2) Calculation checks performed by Validators.

TUNING

Include samples, dilutions, reanalyses, calibrations & cal checks

TUNING COMPOUND	DATE & TIME TUNED	INSTRUMENT ID	ABUND. CRIT. MET Y/N	SAMPLE WITHIN ___HR. TIME FRAME Y/N	FORM 5 #'S EQUAL RAW DATA Y/N	CALC. OK	HEADER INFO OK Y/N	ACTION/COMMENTS
TUNE 1:	DATE: 7/15 TIME: 0932	A-5973	Y	Y	Y	Y	Y	GL
Associated samples: I-Cal								
TUNE 2:	DATE: 7/20 TIME: 0706	A-5973	Y	Y	Y	Y	Y	
Associated samples: 1, 2								
TUNE 3:	DATE: 7/21 TIME: 0706	A-5973	Y	Y	Y	Y	Y	
Associated samples: 3, 4, 5, 6, 7, 8, 9								
TUNE 4:	DATE: 8/1 & 8/4 TIME:							
Associated samples: QC								
TUNE 5:	DATE: TIME:							
Associated samples:								
TUNE 6:	DATE: TIME:							
Associated samples:								

INITIAL CALIBRATION

Include samples, dilutions, reanalyses, spikes & blanks

INITIAL CALIBRATION	DATE CALIBRATED	INSTRU-MENT ID	AVG RRF ≥ 0.05 Y/N	RSD ≤ 20% Y/N	1ST ORD. CORR. COEF. r or r^2 ≥ 0.99 Y/N	2ND ORD. VALUES TRACE-ABLE Y/N	CALCULATIONS CHECKS: 1 RRF PER I-CAL STND.	CALCULATIONS CHECKS: MIN 1 AVG. RRF & %RSD	CALCULATIONS CHECKS: MIN. 1 CORR. COEF-FICIENT	COMMENTS & COMPOUNDS FAILING CRITERIA (Note if compounds are SPCC or CCC)
I-CAL 1:	7/15	A-973	1) Y	2) N	3) —	4) —	✓	✓	—	(d) Toluene 20.6 J/UJ
Associated samples: all										
I-CAL 2:			5)	6)	7)	8)				
Associated samples:										
I-CAL 3:			9)	10)	11)	12)				
Associated samples:										
I-CAL 4:			13)	14)	15)	16)				
Associated samples:										
I-CAL 5:			17)	18)	19)	20)				
Associated samples:										
I-CAL 6:			21)	22)	23)	24)				
Associated samples:										

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Instrument ID: A-5973 Calibration Date(s): 07/15/2009 07/15/2009

Heated Purge: (Y/N) Y Calibration Time(s): 1129 1351

Purge Volume: 10.0 (mL)

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____ RRF 2.5 = A21785 RRF 5.0 = A21784

RRF 25 = A21788 RRF 50 = A21787 RRF 100 = A21786

COMPOUND	RRF 2.5	RRF 5.0	RRF 25	RRF 50	RRF 100	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.9164	0.8032	0.8355	0.8079	0.7692	0.8264	6.7
Chloromethane	1.2979	1.1566	1.1652	1.0864	0.9894	1.1391	10.0
Vinyl chloride	0.8011	0.7370	0.7390	0.7076	0.6498	0.7269	7.6
Bromomethane	0.3609	0.2834	0.2936	0.2863	0.2720	0.2992	11.8
Chloroethane	0.1897	0.1563	0.1642	0.1593	0.1582	0.1655	8.3
Trichlorofluoromethane	0.3895	0.3383	0.3381	0.3301	0.3354	0.3463	7.0
1,1-Dichloroethene	0.5484	0.4724	0.4964	0.4667	0.4311	0.4830	9.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.6280	0.5295	0.5674	0.5491	0.5195	0.5587	7.7
Acetone	0.2015	0.1657	0.1512	0.1628	0.1607	0.1684	11.5
Carbon disulfide	1.9361	1.5810	1.7364	1.6936	1.5662	1.7027	8.8
Methyl acetate	0.4752	0.3645	0.4205	0.3922	0.3719	0.4049	11.1
Methylene chloride	0.5981	0.5314	0.5596	0.5250	0.5068	0.5442	6.5
trans-1,2-Dichloroethene	0.5894	0.5070	0.5348	0.5314	0.4924	0.5310	7.0
Methyl tert-butyl ether	1.0604	0.9620	1.2549	1.2082	1.1942	1.1359	10.7
1,1-Dichloroethane	1.2593	1.0303	1.1586	1.1300	1.0966	1.1350	7.4
cis-1,2-Dichloroethene	0.5411	0.4757	0.5658	0.5486	0.5296	0.5322	6.4
2-Butanone	0.2754	0.2354	0.2940	0.3138	0.3117	0.2861	11.3
Bromochloromethane	0.3070	0.2427	0.2595	0.2475	0.2381	0.2590	10.8
Chloroform	1.1633	0.9373	1.0255	0.9823	0.9578	1.0132	8.9
1,1,1-Trichloroethane	1.0289	0.9365	1.0563	1.0280	0.9739	1.0047	4.8
Cyclohexane	1.2754	1.2116	1.4468	1.3920	1.2594	1.3170	7.5
Carbon tetrachloride	0.8558	0.7640	0.8632	0.8632	0.8162	0.8325	5.2
Benzene	2.7594	2.3889	2.5853	2.4383	2.2172	2.4778	8.3
1,2-Dichloroethane	0.8970	0.7307	0.7950	0.7752	0.7799	0.7956	7.7
1,4-Dioxane	0.0064	0.0058	0.0077	0.0088	0.0088	0.0075	18.3
Trichloroethene	0.7556	0.6402	0.6736	0.6717	0.6135	0.6709	8.0
Methylcyclohexane	0.9790	0.9624	1.1603	1.1301	1.0245	1.0513	8.5

Report 1,4-Dioxane for Low-Medium VOA analysis only

6B - FORM VI VOA-2

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Instrument ID: A-5973 Calibration Date(s): 07/15/2009 07/15/2009

Heated Purge: (Y/N) Y Calibration Time(s): 1129 1351

Purge Volume: 10.0 (mL)

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____ RRF 2.5 = A21785 RRF 5.0 = A21784

RRF 25 = A21788 RRF 50 = A21787 RRF 100 = A21786

COMPOUND	RRF 2.5	RRF 5.0	RRF 25	RRF 50	RRF 100	$\overline{RRF}$	% RSD
1,2-Dichloropropane	0.7238	0.6509	0.7668	0.7255	0.6865	0.7107	6.2
Bromodichloromethane	0.7981	0.6913	0.8311	0.8012	0.7864	0.7816	6.8
cis-1,3-Dichloropropene	0.9935	0.9005	1.0754	1.0333	0.9832	0.9972	6.5
4-Methyl-2-pentanone	0.4794	0.4585	0.7140	0.7411	0.6917	0.6169	22.1
Toluene	4.2899	3.4459	3.0168	2.8377	2.5886	3.2358	20.6
trans-1,3-Dichloropropene	0.8755	0.7827	0.9635	0.9202	0.8846	0.8853	7.6
1,1,2-Trichloroethane	0.5165	0.4255	0.4974	0.4681	0.4539	0.4723	7.6
Tetrachloroethene	0.5746	0.4999	0.5211	0.5269	0.4939	0.5233	6.1
2-Hexanone	0.3555	0.3646	0.5421	0.4908	0.4832	0.4472	18.5
Dibromochloromethane	0.5005	0.4529	0.5820	0.5710	0.5706	0.5354	10.5
1,2-Dibromoethane	0.4660	0.3764	0.4926	0.4683	0.4593	0.4525	9.8
Chlorobenzene	2.0712	1.7269	1.7271	1.7047	1.6340	1.7728	9.7
Ethylbenzene	3.3192	2.9542	3.0168	3.0539	2.9227	3.0534	5.2
o-Xylene	0.9503	0.9054	1.0759	1.0847	1.0523	1.0137	8.0
m,p-Xylene	1.2196	1.0747	1.1355	1.1431	1.0940	1.1334	4.9
Styrene	1.8321	1.6063	1.8171	1.8057	1.7299	1.7582	5.3
Bromoform	0.6079	0.5300	0.7561	0.7241	0.6758	0.6588	13.8
Isopropylbenzene	2.6454	2.5594	2.8134	2.9325	2.8446	2.7591	5.5
1,1,2,2-Tetrachloroethane	0.5931	0.4922	0.6307	0.5941	0.5722	0.5765	9.0
1,3-Dichlorobenzene	2.5452	2.2183	2.4270	2.4686	2.3469	2.4012	5.2
1,4-Dichlorobenzene	3.2667	2.6203	2.5409	2.5179	2.3599	2.6611	13.2
1,2-Dichlorobenzene	2.5398	2.1841	2.3311	2.2650	2.0749	2.2790	7.7
1,2-Dibromo-3-chloropropane	0.1675	0.1282	0.1880	0.1853	0.1768	0.1692	14.3
1,2,4-Trichlorobenzene	1.4526	1.1777	1.5289	1.5395	1.4834	1.4364	10.4
1,2,3-Trichlorobenzene	1.2807	1.0383	1.3910	1.3756	1.3034	1.2778	11.1

P.R.

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Instrument ID: A-5973 Calibration Date(s): 07/15/2009 07/15/2009

Heated Purge: (Y/N) Y Calibration Time(s): 1129 1351

Purge Volume: 10.0 (mL)

GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____ RRF 2.5 = A21785 RRF 5.0 = A21784

RRF 25 = A21788 RRF 50 = A21787 RRF 100 = A21786

COMPOUND	RRF 2.5	RRF 5.0	RRF 25	RRF 50	RRF 100	$\overline{RRF}$	% RSD
Vinyl chloride-d3	0.3809	0.3653	0.4154	0.3781	0.3644	0.3808	5.4
Chloroethane-d5	0.1313	0.1367	0.1541	0.1420	0.1498	0.1428	6.5
1,1-Dichloroethene-d2	1.0586	0.9529	1.1085	1.0476	1.0145	1.0364	5.6
2-Butanone-d5	1.1945	1.3312	1.7695	1.6147	1.5757	1.4971	15.4
Chloroform-d	0.8951	0.8427	0.9460	0.8893	0.8954	0.8937	4.1
1,2-Dichloroethane-d4	0.5268	0.4995	0.5611	0.5287	0.5466	0.5325	4.4
Benzene-d6	1.8835	1.7930	2.0855	1.9230	1.8161	1.9002	6.1
1,2-Dichloropropane-d6	0.6080	0.5999	0.7254	0.6730	0.6530	0.6519	7.9
Toluene-dS	1.7291	1.7350	2.0454	1.9342	1.8979	1.8683	7.3
trans-1,3-Dichloropropene-d4	0.6134	0.6452	0.8257	0.7651	0.7557	0.7210	12.3
2-Hexanone-d5	0.1077	0.1497	0.2644	0.2457	0.2431	0.2021	34.2
1,4-Dioxane-d8	0.0052	0.0044	0.0058	0.0071	0.0073	0.0060	20.8
1,1,2,2-Tetrachloroethane-d2	0.5276	0.5051	0.6510	0.5951	0.5929	0.5743	10.2
1,2-Dichlorobenzene-d4	1.3930	1.4027	1.5601	1.4775	1.4045	1.4476	4.9

Surrogate

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Instrument ID: A-5973 Calibration Date: 07/20/2009 Time: 1611

Lab File ID: A21887 Init. Calib Date(s): 07/15/2009 07/15/2009

EPA Sample No.(VSTD#####): VSTD02531 Init. Calib Time(s): 1129 1351

Heated Purge: (Y/N) Y GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF 25	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.8264	0.5960	0.010	-27.9	50.0
Chloromethane	1.1391	0.8314	0.010	-27.0	50.0
Vinyl chloride	0.7269	0.5831	0.010	-19.8	50.0
Bromomethane	0.2992	0.1707	0.010	-42.9	50.0
Chloroethane	0.1655	0.1010	0.010	-39.0	50.0
Trichlorofluoromethane	0.3463	0.2020	0.010	-41.7	50.0
1,1-Dichloroethene	0.4830	0.3820	0.010	-20.9	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5587	0.4290	0.010	-23.2	50.0
Acetone	0.1684	0.1054	0.010	-37.4	50.0
Carbon disulfide	1.7027	1.3491	0.010	-20.8	50.0
Methyl acetate	0.4049	0.3279	0.010	-19.0	50.0
Methylene chloride	0.5442	0.6188	0.010	13.7	50.0
trans-1,2-Dichloroethene	0.5310	0.4286	0.010	-19.3	50.0
Methyl tert-butyl ether	1.1359	0.9375	0.010	-17.5	50.0
1,1-Dichloroethane	1.1350	0.8818	0.010	-22.3	50.0
cis-1,2-Dichloroethene	0.5322	0.4378	0.010	-17.7	50.0
2-Butanone	0.2861	0.2059	0.010	-28.0	50.0
Bromochloromethane	0.2590	0.1987	0.010	-23.3	50.0
Chloroform	1.0132	0.7524	0.010	-25.7	50.0
1,1,1-Trichloroethane	1.0047	0.7366	0.010	-26.7	50.0
Cyclohexane	1.3170	1.0890	0.010	-17.3	50.0
Carbon tetrachloride	0.8325	0.5923	0.010	-28.9	50.0
Benzene	2.4778	1.9311	0.010	-22.1	50.0
1,2-Dichloroethane	0.7956	0.5663	0.010	-28.8	50.0
1,4-Dioxane	0.0075	0.0050	0.0050	-33.3	50.0
Trichloroethene	0.6709	0.4974	0.010	-25.9	50.0
Methylcyclohexane	1.0513	0.8984	0.010	-14.5	50.0

Report 1,4-Dioxane for Low-Medium VOA analysis only

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Instrument ID: A-5973 Calibration Date: 07/20/2009 Time: 1611

Lab File ID: A21887 Init. Calib Date(s): 07/15/2009 07/15/2009

EPA Sample No.(VSTD#####): VSTD02531 Init. Calib Time(s): 1129 1351

Heated Purge: (Y/N) Y GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF 25	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.7107	0.5481	0.010	-22.9	50.0
Bromodichloromethane	0.7816	0.5606	0.010	-28.3	50.0
cis-1,3-Dichloropropene	0.9972	0.7742	0.010	-22.4	50.0
4-Methyl-2-pentanone	0.6169	0.4568	0.010	-26.0	50.0
Toluene	3.2358	2.2893	0.010	-29.3	50.0
trans-1,3-Dichloropropene	0.8853	0.6768	0.010	-23.6	50.0
1,1,2-Trichloroethane	0.4723	0.3481	0.010	-26.3	50.0
Tetrachloroethene	0.5233	0.4204	0.010	-19.7	50.0
2-Hexanone	0.4472	0.3418	0.010	-23.6	50.0
Dibromochloromethane	0.5354	0.4051	0.010	-24.3	50.0
1,2-Dibromoethane	0.4525	0.3391	0.010	-25.1	50.0
Chlorobenzene	1.7728	1.3802	0.010	-22.1	50.0
Ethylbenzene	3.0534	2.4925	0.010	-18.4	50.0
o-Xylene	1.0137	0.8788	0.010	-13.3	50.0
m,p-Xylene	1.1334	0.9622	0.010	-15.1	50.0
Styrene	1.7582	1.4733	0.010	-16.2	50.0
Bromoform	0.6588	0.4908	0.010	-25.5	50.0
Isopropylbenzene	2.7591	2.4220	0.010	-12.2	50.0
1,1,2,2-Tetrachloroethane	0.5765	0.4293	0.010	-25.5	50.0
1,3-Dichlorobenzene	2.4012	1.9306	0.010	-19.6	50.0
1,4-Dichlorobenzene	2.6611	1.9830	0.010	-25.5	50.0
1,2-Dichlorobenzene	2.2790	1.7413	0.010	-23.6	50.0
1,2-Dibromo-3-chloropropane	0.1692	0.1221	0.010	-27.8	50.0
1,2,4-Trichlorobenzene	1.4364	1.1764	0.010	-18.1	50.0
1,2,3-Trichlorobenzene	1.2778	1.0014	0.010	-21.6	50.0

7C - FORM VII VOA-3
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW05032

Lab Code: KAP Case No.: 38726 Mod. Ref No.: _____ SDG No.: H2FW1

Instrument ID: A-5973 Calibration Date: 07/20/2009 Time: 1611

Lab File ID: A21887 Init. Calib Date(s): 07/15/2009 07/15/2009

EPA Sample No.(VSTD#####): VSTD02531 Init. Calib Time(s): 1129 1351

Heated Purge: (Y/N) Y GC Column: RTX-VMS ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF 25	MIN RRF	%D	MAX %D
Vinyl chloride-d3	0.3808	0.3298	0.010	-13.4	50.0
Chloroethane-d5	0.1428	0.0991	0.010	-30.6	50.0
1,1-Dichloroethene-d2	1.0364	0.8108	0.010	-21.8	50.0
2-Butanone-d5	1.4971	1.2970	0.010	-13.4	50.0
Chloroform-d	0.8937	0.7281	0.010	-18.5	50.0
1,2-Dichloroethane-d4	0.5325	0.4121	0.010	-22.6	50.0
Benzene-d6	1.9002	1.6083	0.010	-15.4	50.0
1,2-Dichloropropane-d6	0.6519	0.5367	0.010	-17.7	50.0
Toluene-d8	1.8683	1.6216	0.010	-13.2	50.0
trans-1,3-Dichloropropene-d4	0.7210	0.6040	0.010	-16.2	50.0
2-Hexanone-d5	0.2021	0.1870	0.010	-7.5	50.0
1,4-Dioxane-d8	0.0060	0.0039	0.0050	-35.0	50.0
1,1,2,2-Tetrachloroethane-d2	0.5743	0.4572	0.010	-20.4	50.0
1,2-Dichlorobenzene-d4	1.4476	1.2311	0.010	-15.0	50.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only